

**College of Engineering, Cornell University**  
**Course Evaluation Response Summary**  
**Semester: Spring 2017      Course Owner: CS**  
**Course: CS 4820 Lec 1      CID: 9111174**  
**Instructor: Schalekamp**  
**202 Responses, 400 Enrolled, 50.50% Response**

<b>Question</b>	<b>Mean</b>	<b>Count</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1. How valuable were the assigned readings? 1=taught me little; 5=extremely educational	4.39	178	1	2	18	62	95
2. How valuable were the homework and/or computer assignments? 1=taught me little; 5=extremely educational	4.11	189	5	9	30	61	84
3. How valuable were the laboratories? 1=taught me little; 5=extremely educational	4.56	32	1	0	2	6	23
4. Rate the examinations in this course as a test of your knowledge. 1=too easy, not adequate; 3=adequate; 5=too difficult, not a fair test	3.71	182	2	5	71	70	34
5. Did the lecturer stimulate your interest in the subject? 1=not at all; 5=stimulated great interest, inspired independent effort	3.98	185	4	16	29	67	69
6. Was the lecture presentation organized and clear? 1=disorganized and unclear; 5=very organized and lucid	4.11	186	2	14	26	64	80
7. Was the lecturer willing and able to help you overcome difficulties? 1=was of no help; 5=was very helpful	4.25	169	3	2	29	51	84
8. Rate the overall teaching effectiveness of your lecturer compared to others at Cornell. 1=worse than average; 5=much better than average	3.98	181	2	5	45	71	58
9. Was the recitation organized and clear? 1=not at all; 5=very organized, lucid	4.24	54	1	2	8	15	28
10. Was the recitation instructor willing and available to help you overcome difficulties? 1=was of no help; 5=was very helpful	4.25	44	1	1	8	10	24
11. How would you rate the recitation instructor's command of the course material? 1=poor command of material; 5=excellent command of material	4.23	48	1	2	7	13	25
12. What was the overall quality of the recitations and your recitation instructor? 1=worse than average; 5=much better than average	4.24	45	1	1	8	11	24
13. Overall, how does course compare with other technical courses you've taken at Cornell? 1=poorly, not educational; 5=excellently, extremely educational	4.00	174	2	14	32	60	66
14. How many hours each week did you spend on this course outside of class/lab/recitation? 1=less than 2; 2=(2-4); 3=(5-8); 4=(9-15); 5=16 or more	4.07	182	1	3	34	88	56
15. How prepared were you for this course? 1=overprepared, it repeated material; 5=underprepared, course assumed unfamiliar knowledge	3.40	184	2	6	114	41	21
16. Was the code of academic integrity maintained in this course? 1=no, often violated; 5=yes, well maintained	4.42	179	4	7	12	43	113
17. Most important reason for taking this course? 1=field or major requires it; 2=prerequisite for further courses of interest; 3=interest in subject matter; 4=reputation of the course; 5=reputation of the instructor	--	183	131	0	34	10	8

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**1. Please comment on the strengths of any aspect of this course (e.g., the lecture, recitation, laboratory, computing, text, homeworks, examinations or course content).**

456: HWs were definitely hard and expanded my way of approaching problems.

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459: NONE

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716: The instructors were able to cover a large amount of material about the important algorithms of the field of computer science without going through everything too quickly, allowing students to fully understand the material.

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760: Good overall

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961: The prelims were fair and representative of the course material and course difficulty, in my opinion. The textbook was a great resource and very comprehensive and understandable. The late days policy on the homework was great, as was piazza.

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1030: Lectures were well organized and followed the book closely so it was easy enough to read the book if lecture was confusing

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1063: Schalekamp is an engaging lecturer and genuinely cares about his students.

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1143: Professor Frans is one of the best lecturers I've had at Cornell. He's clear, professional, light-hearted, and just an overall great teacher. I found his lectures easier to follow than Professor Kleinberg (who is a great lecturer himself), and really understood the material when it was explained by Professor Frans. One of the cool things about Professor Frans is his accessibility. He's great at responding to emails and I've even joked with him about Algorithms at an AI seminar. It is my opinion that Cornell needs more Professors like Frans.

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1431: Homeworks were challenging and thought provoking.

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1511: Engaging lectures, interesting homework.

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2511: Professor Schalekamp is now one of my favorite professors here at Cornell. He showed great interest in teaching the material and went above and beyond whenever required. His office hours were always helpful and he genuinely wanted to make sure that students understood the problems before they left. In lecture he was lightheaded and tried his best to teach in a way that wasn't too serious and yet still made sure we understood everything. Overall, great experience having him as a professor.

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2831: This class is a piece of crap.

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2940: The content covered is very helpful even outside of this course. They were interesting the think about and important to know about.

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2967: Frans was a cool lecturer and someone worth spending time to go see during OH. He was both helpful and interested in watching students learned. I felt comfortable with his style of instruction and look forward to another class with him in the future.

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3078: Homeworks were difficult, but very helpful,

Class was well taught, I learned a lot.

More interested in algorithms for the future.

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3102: I really liked Schalekamp's pace of lecturing. He gave people a chance to think about what he had been explaining by letting there be short pauses.

I liked the print outs that were given during the course for review and supplemental material.

I also like that they provided latex documents with which to start our homework.

3477: Lectures were clear and organized. Homeworks were challenging and forced you to get a deeper understanding of the material.

3483: I loved prof Schalekamp!! He was incredibly funny and always kept us engaged.

3713: Professor Schalekamp is a great instructor. He really knows about his material and are always willing to offer help.

3732: see comments for kleinberg

3753: Clear lecture.

3993: Schalekamp is an entertaining lecturer and pretty helpful in person. The exams were a fair test of knowledge.

4123: Professor Frans is always smiling, laughing & generally happy - that is always a plus point.

4965: Excellent course in terms of the material learned and how applicable it was

4975: Lectures were clear and usually easy to follow, Frans is funny so he made the lectures slightly less dull

5122: Material is incredible interesting, problem sets are challenging, lectures are clear, office hours area very helpful.

5155: Same as my comment for Prof.Kleinberg.

5274: Text was good.

5560: The course content was very useful to learn as a computer science major. The homework assignments were very difficult, but I did learn a lot from them.

5576: Lectures are easy to understand.

5586: same as before

5734: This course was very difficult, but the course was very helpful. It was a struggle but there was a great outcome. It sparked my interest and there was great comradery amongst students and TA's. Schalekamp is a genius and great fun during lectures. He has become my favorite professor here at Cornell. He was also helpful during office hours. Piazza was also amazingly helpful and hilarious.

5897: The textbook and lectures often corresponded strongly, which was very helpful in learning the material.

5900: Franz is very nice when you ask him about algorithms.

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6336: I love this man and his teachings.

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6348: Great instructor. Always answered students' questions and explained material well.

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6381: Frans was fine, but pretty unhelpful in Office Hours. He just watches you struggle instead of helping.

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6517: Really like the subject matter, and Prof Schalekamp is super enthusiastic about it which makes it better.

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7057: Good office hour times, excellent textbook.

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7097: I thought the homeworks were really good, challenging but with all the help from TA/professor office hours, still manageable. The lecture was interesting and I liked how it followed the text closely so I could go back and review if I needed. The lecture notes were also really helpful with this respect.

The textbook was well-written too. It was organized and also readable with good examples and practice problems. I thought the course was well-paced, covering a variety of interesting topics.

Prof. Schalekamp's lectures were really enjoyable. I thought he was funny and made the lectures entertaining while also making the material interesting. I felt engaged and he always stopped for questions. Overall, really enjoyed the class and learned a lot!

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7177: The homeworks prepared us well for the exams.

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7341: Very good lecturer.

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7355: The lectures were engaging. The content was awe-inspiring and interesting and the reading went very well with the lectures.

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7388: Frans is a great lecturer. During office hours he talks to me like I'm 5 and gives just enough hints for me to connect the dots. He's the hero we deserve.

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7497: amazing prelims...they test knowledge very well

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7650: Franz is really good at lecturing; he is really entertaining and engaging to listen to, and his lectures are very well structured.

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8150: very good lectures and notes.

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8300: The lectures were organized and clear, and Professor Schalekamp is good at thoroughly explaining the material. The homeworks were very difficult, but educational. The examinations were generally of fair difficulty.

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8675: Frans bring a funny element to the class that I greatly appreciate

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10449: Cool subject material. The homeworks were really difficult but required a lot of critical thinking as they required students to take what was taught in class and go further.

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10700: Lectures combined with the textbook were great for understanding the course material. There was an abundance of TAs and office hours, most of which were very helpful. The homeworks really helped further the understanding of the things we learned in lecture. Much of this class was very pragmatic in the sense that I can use the things I've learned and apply them in the real world.

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10753: It is pretty clear  
good handwriting  
videonote is preferred

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10793: Prof. Schalekamp was very approachable and friendly, and helpful in office hours while still letting us think for ourselves.

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11000: The strengths of the course are the professor and course material. Professor Franz is a very talented lecturer and should stay at Cornell.

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11079: the lectures were funny and interesting

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11113: I made my comments in Professor Kleinberg's evaluation; they're the same.

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11369: Homeworks were very educational.

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11378: Frans was great!

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11401: Same as comments for Professor Kleinberg

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11418: Great Professor and very passionate about the subject. Always willing to help students!

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11471: Material made you think

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11474: Great!

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11560: I liked the somewhat casual nature of the lectures, and I enjoyed the material. I think it made me a better software engineer and theorist, even though it was difficult.

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11566: Frans is very nice and willing to help students a lot. He also smiles a lot which gives a very positive feel to an otherwise moody 9am feel.

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11572: Very interesting material! I learned a lot!

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11625: The lectures were extremely educational.

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11645: The lectures were very clear and lucid when taught by Professor Schalekamp. He is an excellent lecturer.

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11981: Good

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12097: I think that the lectures were good and I did learn a lot from this class.

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12172: Professor cared about students and would be open to answering questions.

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12203: The class covered a wide range of material.

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12316: Frans is my favorite professor for a CS core class thus far. He is amazingly helpful in both lectures and office hours, guiding students to answers without giving anything away. He also takes a great deal of personal interest in his students (2nd CS course professor to ever remember my name...and Prof. Andersen was cheating because Ed Tech

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had like 15 people).

I'm not sure how long this man is planning to be at Cornell but, real talk, give him tenure or free cookies or something ASAP so he sticks around.

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12596: Very interesting!

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12663: Homeworks really helped one to grasp the material and how to apply it.

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12710: interesting material, great staff support

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12730: The class taught a lot of cool things.

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12739: Both professors were very clear and concise in the way they presented the material in lecture. I think most TAs were very helpful with the homework assignments.

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12748: Good TAs

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12931: I thought the instructor's lectures were pretty well organized. I appreciated the fact that lecture notes were posted on CMS, which I forgot to mention in Prof. Kleinberg's eval.

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The rest of the strengths I listed in Prof. Kleinberg's eval

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**2. Please comment on the weaknesses of any aspect of this course (e.g., the lecture, recitation, laboratory, computing, text, homeworks, examinations or course content).**

456: This class was unbelievably frustrating from an assignment and fairness standpoint. I started this course inspired to really think long and hard about the problems we were given, asking for assistance from TA's only when absolutely necessary. I wanted to challenge myself and expand my creativity as a thinking, and, naturally, I expected the course to reinforce that.

It absolutely didn't.

Office hours devolve into TAs giving students the answers to the problem sets because a significant number of TAs either don't prepare or don't understand the answers to the problems themselves. Even the professors' office hours devolve into said answer-sharing sessions. It's ridiculous. Why am I penalized for asserting independence and attempting to think for myself, as a Cornell student.

Grading is equivalently uneven and bad. A PhD TA could grade your HW and give you the score you absolutely deserve, given the rigor of your proof and your understanding of the material. Or you could get a poor undergraduate TA who doesn't full understand the class, sees your answer, looks for keywords that you should include according to the answer key (which, for a lot of these problem sets, isn't the only way to solve a problem), and gives you either a 10/10 for getting those keywords or a 6/10 for not matching the answer key. If the latter occasion occurs, you ask for a regrade, which is answered months later by a PhD TA, who gives you the score you should have gotten from the beginning. However, this procedure rewards students who sit in OH for hours, leeching off other students and the TAs that pass through. Said people grab, essentially, the answer-key's implementation and benefit in all of the above scenarios. How is this fair? It's not.

The above significantly reduces the legitimacy of this algorithms course at Cornell. We're a top 10 CS school. Why is this happening? It's an absolute shame.

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459: If the assignments had an average of 50%, the professors should have adjusted the difficulty or taught the material better. They destroyed any interest I had in the material with the ridiculously long and complex homework questions. It would be nice if they realized that although we get the intentions that they want us to think about the questions, this was not the only class we had. Took up majority of my time this semester and TAs vague answers in OH did not help. Overall, worse course I've ever taken and the CS department should consider not making it a requirement for graduation. Also, they reused materials from previous years on the prelims, giving an unfair advantage to those people who had access to it. They should know that a lot of organizations on campus have storage of previous materials. So using the same questions (word for word) on an exam is not the best way to test knowledge.

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716: The homeworks, though necessary to understand the material, were super intensive and every week, and were stated to require office hours- most of the time I spent doing homework this semester was spent on this class.

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760: Homework is too hard

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961: The homeworks were ridiculously difficult compared to the prelims and the course material. I had to spend an obscene amount of time on them. My schedule is really irregular so it was hard to go to office hours/work with a group of people, so I often just chugged through them on my own. Though I did fine on the prelims, the homeworks were what took my grade down for the most part.

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1030: The homeworks were much more difficult than anything discussed in lecture, and the exams were very varied in difficulty from lecture, homework, and each other

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1063: This course is just not taught well. Schalekamp goes over a concept in class and gives homework which is essentially just impossible without some previous knowledge. Everyone did the home work by badgering the TAs in

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office hours which by the way are not held over the weekend. The homework grades did not come out for a while either so you would not know how to improve as well. Only math majors were adequately prepared for this course. My best example for how difficult the homeworks were is the following. If compared to a Calculus course imagine doing the following. Going over a given example in class. Then immediately getting the last question in the accompanying section without any buildup with easier questions so I could get the concepts.. If I wanted help conceptually in the test, I could go to office hours, but they would already have 20-30 students trying to get homework solutions.

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1143: This class takes the saying "go big or go home" to an all new meaning. I would literally dump hours of my time into doing the "difficult" homework question (the DP truck delivery problem and NP-Complete Grid problem stand out in particular...) and curse this class all the while. However, solving them gave me a great sense of accomplishment and bestowed upon me a sense of confidence - a knowledge that I could solve any problem they throw at me. Also Prelim 1 was too easy but Prelim 2 was too difficult in my opinion.

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1431: Lecture does not help much in doing the homework.

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1511: The homeworks were a tad too difficult, some weeks. I found the weeks where we were assigned three problems but could choose two to do to be the least stressful.

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2511: Office hours for various TAs were very inconsistent in how helpful they were from week to week. Some weeks certain TA's simply had no clue how to help us with the homework problems.

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2827: HWs were extremely difficult to the point where I could not get far without needing to go to office hours that week. But still took a long time afterwards to try to understand the material  
Second exam was also very difficult on timing--two full proofs along with other questions just didn't seem feasible

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2831: This class is shit. This class is shit. This class is shit.

---

2940: The notations used in class were very confusing. Some of the major concepts were also not very well explained, either due to lack of time in lecture or due to the lack of in depth explanations.

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2967: As mentioned in my review of prof. Kleinberg -- the class was tough which is both good and bad.

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3078: Turing Machines are awful.

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3095: Should have spent more time on approximating algorithms rather than NP-hard and Turing machine, which are hardly useful in practice.

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3102: The book could be a bit dense for someone with a learning disability.

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3477: Sometimes the professor's handwriting was hard to read. The homeworks sometimes may have been too challenging, and office hours would get way too crowded so it was hard to even get help.

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3483: The homeworks were just soooo long

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3732: see comments for kleinberg

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3993: Office hours could be better organized. First, having weekend hours would help spread out the concentration of people cramming into office hours during the week and would work better with schedules. Second, office hours in gates were often over crowded to the point where they were unhelpful as a student and overwhelming to the TAs. As such it was impossible to glean helpful information from Office hours.



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The homeworks were sometimes extremely difficult which didn't help my understanding of the material. When we are introduced to new material, it would be nice to have one homework problem that is easier to help us understand the material before overwhelming us with challenging problems. As I mentioned earlier, it was very difficult to get help in Office Hours. Having such hard homeworks seemed more frustrating than productive and didn't stimulate any interest in the subject.

The clicker questions were structured unfairly. For the first half of the semester, there were barely any clicker questions. Then, there could be one, two, or none on any given day, which meant missing the 'wrong' class was extremely detrimental to our grade even though we had been to most classes. In the future I would have liked one clicker point every day or don't have clicker points count at all.

Finally, the professor often scrolled too fast after presenting the material for me to copy down notes, and would often scroll the page while talking making note taking difficult.

Overall I think this class was much more stressful than it needed to be (and by the sounds of it much more difficult than in the past). Making the homeworks slightly easier, making office hours more accessible, and adding slip days could all reduce stress and make learning the material more engaging.

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4123: HW assignments are super tough! After a while, it seems like students are just sitting in Office Hours to get the answers; the HWs are also very draining and it feels like the instructors think that this is the only class we have in our schedule. I would really do something about it - maybe reduce the number of HWs & make them due every other week ie give more time per HW.

Some TAs are forever confused & are really not helpful. This is not good for a course this large!  
:(

Prelims are weird in the sense that the first was too easy & the second was too long. This is very unfair to students, who expect a certain format. Please consider changing this approach; it's not good! :(  
Some TAs are forever confused & are really not helpful.

Prelims are weird in the sense that the first was too easy & the second was too long. This is very unfair to students, who expect a certain format. Please consider changing this approach; it's not good! :(

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4965: Having an assignment every week was a bit taxing on the mind given people do have other classes

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4975: Homework assignments difficulty did not reflect the difficulty of the tests or lectures, often were made too hard for an undergrad level class with medians around 50% and taking hours to write up because they had to be done individually.

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5122: Sometimes problems sets were a little too much.

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5155: Same above.

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5274: HWs were very hard. Attending office hours was required to do well on them.

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5560: Homework assignments were almost too difficult, such that coming up with solutions without getting help at office hours was unlikely. This encouraged some students to just fish for answers at office hours rather than coming up with solutions on their own, which put other students at a disadvantage for instead trying to do their own work.

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5576: N/A

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5586: same as before

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5734: Homework difficult. But all good tho.

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5897: The homeworks were often extremely difficult, and assumed a deep understanding of the material, although the material was brand new.

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5900: Franz is sometimes not great at conveying algorithms concisely during lecture.

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6336: I don't who makes the homework, but it shouldn't be crazy hard.

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6348: Sometimes material was difficult to grasp and follow along.

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6381: Gosh the homeworks were hard. They got a bit better towards the end of the semester, but everyone needs to go to office hours. Which were just ridiculously crowded. It became a game not of understanding the material presented in class but a game of figuring out which TAs would give the biggest hints on the homeworks. While most were not this bad, at one office hour, I counted the number of people that showed up: 74. That's bigger than the average class at Cornell. There's plenty of TAs, that's not the problem. It's that going to them is required to do well on the homeworks.

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6517: Homeworks are extremely difficult and take a toll when they come out so frequently at the level of difficulty that they are. If they were more spaced out or more do-able it would've been more enjoyable.

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7057: The homeworks are so difficult and far reaching from the material at some points, that it would be impossible to finish the homework with the right answers without attending many office hours. From what I could tell from speaking with many students is that they go to office hours to get the answer, because even with attending lecture and reading the book, the only way to get the answers is to have the TA's write out the answers in office hours. The line between getting a good grade on the homework and getting almost nothing on the homework is the number of office hours one can attend, and not how much they think about the problem. It can also be luck, if the TA gives out the bulk of the answer or not. The homeworks should be MUCH more applicable then they currently are, and it has been said by TA's that this semester that these homeworks were more difficult than previous years.

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Professors should remember that while this content is second nature to them, for many of the students, these questions are just too far from covered material to understand.

Also the posted notes are almost illegible, I would suggest moving to a typed format

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7097: Overall I thought the exams were reasonable, being challenging but doable. However, I did find the second exam a little long without actually being much more difficult. I think the nature of the problems required tedious proofs so I wish we had one less question (maybe fewer questions about running the max flow algorithms in the beginning or make the multiple choice at the end extra credit). For me it became more of an exercise of how much can I write down in the allotted time, and not whether my answer was correct. Otherwise, I thought everything was great.

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7177: The homeworks seemed unduly hard at times.

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7341: Wish the HW was a bit easier, but also that they didn't explicitly give step by step solutions in OH

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7355: Examinations should be scrapped in this class.

Algorithms are all about creativity and there is a research aspect to solving algorithmic questions. Toiling through the home works with fellow classmates literally made me feel like a researcher, and that laborious, collaborative effort is ultimately what made this class great.

Testing this creativity individually on an examination under time pressure is stupid and takes away from the elegance of the course material and the field in general. It also spoils grades because it is hard for some of us to write well

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reasoned proofs and algorithms under time pressure. I suspect many will agree with the sentiment that thinking algorithmically requires a clear, tension free mind and a collaborative environment, and I think that's what this course should try to foster.

I propose making homeworks, iclickers and maybe a semester long research project (with an imperfect latex paper as the final submission) as the grading parameters for this class.

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7388: Homeworks are too brutal. I don't see the point of releasing Homework problems that 95% of the class can't solve on their own and 50% of us can't even understand the solution.

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7497: homeworks are WAY WAY too hard, to the point where it is impossible to do it without going to EVERY SINGLE office hour out there, which is crazy and too time consuming

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7650: n/a

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8150: hw way too hard.

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8300: I think that each homework should have at least 1 "easier" question, which would serve as a warm up to learning how to do these kinds of questions. For example, the NP-complete homework and the Turing Machine homework were two homeworks which only had difficult questions, making it difficult to start understanding the material. I also think that the first exam was too easy, in that it placed too much emphasis on the dynamic program design question to differentiate stronger students.

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10323: Lectures were just recitations of the textbook. Could've helped build a better paradigm when it comes to tackling algorithmic problems.

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10449: The second exam was really difficult. Proofs take a while for me to write, and there were like 3 on the exam. Also, during lecture, he does this thing where he'll scroll up and down, and then people can't write down what he just wrote. OneNote can open two synchronous windows, and you can have one to write notes on and one to refer to previous sections of the notes.

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10700: Some of the homeworks were so difficult that the only way to get the fully correct answer was to go to office hours. I don't think it is just me who felt this way during the class. It was sometimes difficult to deal with the difficulty of the class.

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10753: Hw is a bit too hard sometimes

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11000: A few bad TAs, discussed more in Kleinberg evaluation.

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11067: A little scrambled but a fun guy nonetheless

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11079: the second prelim was really long and unfair for a 1.5 hour exam

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11369: Nothing much.

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11401: Same as comments for Professor Kleinberg

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11418: The problem sets were MUCH too difficult - it was to the point where I was merely going to office hours and copying down what the TA said because it was impossible to obtain foundational practice on lecture topics before diving into the problem sets.

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**Instructor: Schalekamp**  
**202 Responses, 400 Enrolled, 50.50% Response**

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11471: Homeworks were very hard at times and lectures were hard to follow

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11474: HW too hard tho

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11560: I think the homework might have been too difficult at times.

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11566: To be honest, the homeworks were a bit difficult. These were usually problems that couldn't be solved in 6 days without help of the TAs which in my opinion shouldn't be so. While I admit that they were fun, it should maybe have been toned down a little in difficulty for an undergraduate course.

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11572: The homeworks were a bit too difficult. It resulted in TAs simply giving away answers during office hours. I think homeworks should be a little easier, and maybe have an extra credit section on each homework that is as difficult as the current questions that we got.

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11606: Homeworks were too difficult

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11625: The exams and the hw assignments were extremely difficult.

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11645: The homework was brutally difficult at times, to the point when I would go to OH for the solutions rather than understanding. Even after learning the solutions to some problems, I don't adequately understand them because they are so abstract. Perhaps if you could build up to the harder problems rather than just dropping difficult problems first, that would be better in my humble opinion.

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11981: Good

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12097: I think that there was too much homework. While I learned a lot from it, 1 problem less each assignment would have made the difference between a lot of homework and so much homework that it took almost all of my free time to complete. I spent around the same amount of time on this class as I did on all others combined.

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12172: I think my general impression is that Professor Schalekamp didn't know as much about algorithms as Professor Kleinberg. I think it's a combination of being the first time teaching the material and Professor Kleinberg has had more time teaching it. Lectures were usually not very clear, almost verbatim from the book. I liked Professor's Kleinberg of giving a more intuitive teaching of the material -- but I know that means that he also had to understand the material better. If I wanted to read the book, I would. I come to lecture to see what is the most important things I need to learn and help me understand the tough material. Schalekamp didn't seem to know as much as algorithms. His approach was almost, memorize these facts, rather than really teaching the material. He would use a lot of notation during lecture (like how the book presents it) rather than explaining why we would use this algorithm, the reason why the algorithm does this or any intuitive explanation of why something works. When pressed about certain topics, I remember asking him after class about a lecture, he kind of says "don't worry about that" when it was important to my understanding of the material. However, when I asked Professor Kleinberg, he could answer my same question much better.

I think that comes with understanding the material well. I've heard Professor Schalekamp is helpful during office hours, but Professor Kleinberg would help you more since it seems Professor Kleinberg wrote the problem sets. I did not pay attention much to Professor Schalekamp's lectures because they usually weren't very clear. For example, I think the entire class did not understand Dynamic Programming at first because he did not explain it well. He used a lot of notation when it would've been a lot more useful to actually draw the matrix out and show memoization with the matrix rather than just writing the pseudocode. I spent 3 hours with my friend after class to try to understand what was going on and we wouldn't have needed to if he showed us how the matrix worked in lecture.

I think my only advice is that I hope Professor would teach as though someone is learning it for the first time and try to not just present the material. Use more images, write less pseudo code, give more intuitive explanations/diagrams and start from a high-level point of view before going deeper.

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**College of Engineering, Cornell University**  
**Course Evaluation Response Summary**  
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12203: The homeworks were far too hard. I understand that they should be challenging and get us to conceptually understand the concept but after a certain point it defeats the purpose. I suggest making the homeworks more reasonable and allowing us to drop 1 homework.

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12316: homework was way to hard.

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12663: Uploaded lecture notes were messy and hard to understand.

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12710: homework far too hard

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12730: Everything was too hard. This class is not fair as Eva Tardo's class is easier in every aspect and the median grade is higher and the course load is lower. Had I had an opportunity to redo this semester I would not have taken ALGO even though it was taught so well. The amount of time spent in this class for diminishing returns was not overall worth it. This is not fair for two versions of the class to have radically different grading and difficulty. This years class should have a higher median given how hard it was considering:

THE HOMEWORK WAS MENTIONED TO BE MUCH MORE DIFFICULT THAN EVA TARDO's HOMEWORKS  
SAME FOR THE EXAMS

If you think about, grades could matter very much depending on your professional choices (i.e. Grad school). Why would I take a version of the class that is harder and has a LOWER MEDIAN????  
NOT ONLY THAT, BUT THIS CLASS PROBABLY HAD A NEGATIVE EFFECT ON MY OTHER CHOICES.

If learning was the only goal and grades did not matter then maybe I would have a better opinion, but ultimately it is not fair for the EVA TARDOSand ROBERT KLEINBERG version of the class to have such differences.

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12739: The homeworks were definitely too difficult. It is definitely an issue when office hours are always packed with students looking for the TAs to provide them hints/essentially give them the answers for some of the problems. I have some very intelligent peers and I know that they too struggled immensely with the homework assignments. The homeworks should definitely be more reasonable. Even the TAs agreed that the assignments were much harder than the assignments they had when they were taking the course.

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12748: Problem Sets too hard

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12931: I also already ranted about the homeworks in Prof. Kleinberg's eval. Please refer to that.

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