Question	Mean	Count	1	2	3	4	5
11. [Course Content] Preparation: How well prepared were you to learn the			~	_	~~	_	
material in this course?	3.05	41	0	5	29	7	0
1. Very under prepared, more pre-requisites needed							
2. Under prepared							
3. Adequately prepared							
4. Over prepared in some areas							
5. Over prepared, material largely duplicates pre-requisites				-	-		
12. [Course Content] Content Organization: Did the course structure and							
organization facilitate your learning?	4.10	41	1	1	6	18	15
1. Very disorganized, significantly hindered my learning							
2. Somewhat disorganized							
3. Adequately organized							
4. Well organized							
5. Very well organized and structured, significantly enhanced my learning			_				
13. [Course Content] Synthesize & Apply Content: This course challenged							
me to synthesize ideas, think critically about the content, and apply the	4.15	41	0	2	6	17	16
material to unfamiliar topics and problems.							
1. Not at all							
2. Occasionally							
3. Every few classes							
4. Many classes and assignments							
5. Nearly every class and assignment							
14. [Course Content] Examples & Applications: Were the number and							
variety of examples and practical applications presented appropriate to the	4.20	41	0	2	4	19	16
course content and for your learning style?							
1. No, almost no examples							
2. A few, but insufficient number and/or mostly trivial							
3. Some, but more or higher quality would have been helpful							
4. Yes, including some very good ones							
5. Excellent use of examples and applications that significantly increased							
my understanding of the material							
21. [Course Delivery] Lectures: As a whole, were lectures clear, well-							
structured, free of significant or frequent errors, and did they appropriately	4.20	41	0	5	3	12	21
cover the course content?							
1. No, usually poorly done							
2. Sometimes							
3. Usually adequate							
4. Usually good							
5. Nearly always very good		-					
22. [Course Delivery] Context: Did the lecturer motivate the course content							
and place it in the context of your major or your overall engineering	4.27	41	1	1	6	11	22
education (beyond fulfilling a degree requirement)?							
1. No							
2. Somewhat							
3. Adequately							
4. Mostly							
5. Absolutely							

			-				
23. [Course Delivery] Engagement: Did the lecturer present material in an							
engaging way, which improved your understanding of the course content?	4.37	41	0	2	5	10	24
1. No, generally boring							
2. Rarely engaging							
3. Generally held my attention							
4. Engaging							
5. Very engaging and often required actively thinking about material							
31. [Recitation or Discussion Section] Was the section effective in			1				
increasing your understanding of, and ability to use, the course material?		0	0	0	0	0	0
1. No, usually poorly done		-					
2. Sometimes							
3. Usually adequate							
4. Usually good							
5. Nearly always very good							
			r	-	-	-	
41. [Laboratory Section] Lab Activities: How valuable were laboratory	3.32	41	4	5	14	10	8
activities in enhancing your learning in this course (e.g., taught specific	3.32	41	4	5	14	10	0
skills, provided experience with real equipment and data, provided hands-							
on experience, increased my understanding of the material)?							
1. Minimal value							
2. Occasional value							
3. Moderate value							
4. Significant value							
5. Very valuable, well worth time spent on them							
42. [Laboratory Section] Lab expectations: Were lab expectations (goals,							
tasks, reports, deadlines, etc.) clear and realistic?	4.02	41	2	1	8	13	17
1. Not at all							
2. Partially							
3. Adequately							
4. Usually clear and realistic							
5. Almost always very clear and realistic							
43. [Laboratory Section] Lab resources: Were lab resources (equipment,							
software, information, instructions, etc.) sufficient to provide a positive	3.90	41	1	2	10	15	13
experience?							
1. Rarely sufficient, severely detracted from the experience							
2. Sometimes sufficient							
3. Usually sufficient							
4. Almost always sufficient							
5. Excellent resources that enhanced the laboratory experience							
44. [Laboratory Section] Lab Staffing: Support and help, during lab and for	 i	-					
lab reports, were sufficient to successfully complete and analyze	3.88	40	2	2	7	17	12
experiments.	0.00	10	-	_	-		
			-				
1. Rarely sufficient 2. Partially sufficient							
, ,							
 Adequate Almost always sufficient 							
5. Excellent, significantly enhanced the laboratory experience			-				
51. [Workload, Resources, Assignments & Assessment] Workload: How	1.88	41	13	20	8	0	0
many hours per week, on average, did you spend doing work associated	1.00	41	13	20	0	0	U
with this course outside of scheduled class time?							
1. <3 hours							
2. 3-6							
3. 7-10							
4. 11-15							
5. >15 hours	J						
	-						

			_				
52. [Workload, Resources, Assignments & Assessment] Workload Value:							
The time spent on various assignments (homework, lab reports, coding,	3.90	41	0	2	12	15	12
projects) was reasonable for the amount it improved my understanding of							
the course content.							
1. Little value relative to the time required							
2. Some value							
3. Reasonable value for the time spent							
4. Good value for time spent							
5. Excellent value to time ratio							
53. [Workload, Resources, Assignments & Assessment] Resources: How							
valuable were outside of class-time resources (e.g., readings, videos,	3.66	41	1	3	14	14	9
online content, course notes) in building your understanding?	0.00		-	-			
1. Minimal value							
2. Occasional value							
3. Moderate value							
4. Significant value							
5. Very valuable, well worth the time spent on them			r	-			
54. [Workload, Resources, Assignments & Assessment] Value of	4 4 7	4.4				10	10
Assignments: Independent of the time required, overall, did assignments	4.17	41	1	0	6	18	16
(e.g., homework, labs, programming assignments, projects, papers,							
presentations) improve your understanding of, and ability to use, the							
course concepts and content?							
1. Minimally							
2. Sometimes							
3. Usually							
4. Almost always							
5. Reliably and significantly increased my understanding and ability							
55. [Workload, Resources, Assignments & Assessment] Exams & Grading:							
Were exams and grading a fair and reasonable measure of your learning?	4.29	41	0	1	9	8	23
(Exams: clear, well written, range of content and difficulty. Grading: fair,							
prompt.)							
1. No							
2. Significant issues exist							
3. Generally fair assessment of my learning							
4. Well developed and fair							
5. Yes, definitely							
61. [Course Environment] Diversity & Inclusion: To what extent have the					I		
professors and teaching staff fostered an inclusive environment such that	4.39	41	1	0	1	19	20
	4.00	71	•	Ū		10	20
the class is welcoming to all, everyone is encouraged to participate, none							
are made to feel different, and all are treated fairly?							
1. Extremely non-inclusive with inappropriate comments and/or behaviors							
2. Actively not inclusive with certain students ignored, left out, or treated							
dismissively							
3. Passively not inclusive; comments or contributions by some students are							
valued less than those of other students							
4. Passively inclusive where everyone is welcome to participate. Nothing							
specific to encourage or discourage anyone.							
5. Actively inclusive, all are fully encouraged to participate and are							
supported							
62. [Course Environment] Access to Assistance: Was there sufficient							
access to assistance (through office hours, online forums, in-class or	4.20	40	0	1	8	13	18
section questions and/or activities, special accommodations met, etc.)?							
1. Almost no access and/or help was ineffective							
2. Limited access or value							
3. Acceptable access and help							
4. Good access with quality help							
5. Abundantly available high quality help							
	1						

 63. [Course Environment] Academic Integrity: Was the code of academic integrity maintained in the class (e.g. with respect to cheating, copying, plagiarism, use of unauthorized sources, etc.)? 1. Blatant disregard for Academic Integrity 2. No. Violations clearly occurred that were not addressed. 3. Not strongly. Violations could well have occurred (even if I am not aware of any). 4. Yes. Instructor took reasonable steps to maintain academic integrity. 5. Yes. Academic integrity was clearly and intentionally maintained. 	4.43	40	0	0	1	21	18
 91. [Comparison to Other Courses] Instructor: Rate the overall teaching effectiveness of your lecturer compared to others at Cornell. 1 = Worse than average 5 = Much better than average 	4.41	41	0	1	4	13	23
 92. [Comparison to Other Courses] Course: Overall, how does this course compare with other comparable (technical or non-technical, as appropriate) courses you've taken at Cornell? 1 = Poorly, not educational 	4.41	41	0	0	4	16	21
5 = Excellently, extremely educational							

Comments On Course Content

47: Fascinating, well-taught content and excellent, very helpful professor

209: For a course that mose people won't have a strong background for going into, the class has fantastic management and always provides resources to keep you caught up!??

1578: Very interesting and applicable examples to real life such as the engineering seminar pairing through max flow.

1703: None.

2561: The course pack is very helpful; I think some more practice problems on just carrying out the algorithms would help.

4326: It was good overall.

5648: Very good, perhaps more emphasis on practical applications and real world problems would be nice. We discussed it briefly but I would have preferred to do something.

6521: I feel that the homeworks were sometimes too difficult. I had to cooperate with other students for my class to figure out the homework because it was almost impossible to complete a homework individually.

9297: Liked it a lot!

9378: Reductions are cool. Linear programming is cool. I really enjoyed learning about the algorithms and proving their optimality. It's a different perspective to algorithms than what gets taught in CS courses. Rather than focusing on how to implement algorithms correctly and efficiently with code, this course dives deeper into applying algorithms creatively to problems and arguing for the correctness of solutions. I think this is a very nice course to take alongside CS courses.

9829: Liked it.

12620: This class was by far my favorite. I thoroughly enjoyed taking this course, both for the highly interesting material and for our excellent instructor, Frans Schalekamp. Above I indicated that this class caused me to think critically 'every few classes' because Prof. Frans explained the material in such a way that it became so easy to understand.

Comments on Course Delivery

47: Excellent course delivery

209: Dr. Schalekamp was easily my favorite lecturer in Cornell so far. He makes every class really enjoyable and is readily available for any questions students may have. He has a way of making very confusing topics seem not too difficult, and is relatable and personable if you talk to him outside of class.

529: Always asked a lot of thought-provoking questions

1578: Very enthusiastic and eager delivery.

1703: Good.

4326: Frans is a very fun professor! He knows how to keep the class engaged.

5648: Lecture was at times confusing, but definitely engaging when I could understand it. Rationale for certain operations was sometimes lost or poorly explained.

6511: but sometimes, the harder topics should have had more time spent upon them during class.

6521: I felt that Professor Schalekamp was very engaging and presented material very clearly. Again, the homeworks were sometimes too difficult with was presented during lectures.

9297: Appreciated the professor's passion and understanding of the material.

9378: Prof. Schalekamp's lectures are well-paced and engaging. I am able to follow along with hand-written notes without missing anything.

9829: Didn't like some lectures.

12620: Prof. Frans made this class very enjoyable. Beyond being able to adequately answer all questions and deliver the material in a concise easy-to-understand way, he included many jokes and funny/interesting examples that kept the class engaged and interested throughout the lecture. He encouraged questions, and I found myself asking and answering my questions during a lecture in a very satisfying fashion. Overall, I would certainly (be excited to) take another class lectured by Prof. Frans.

Comments on laboratory component

209: One comment: there's no need for an in person recitation for something that can easily be done online.

1578: Laboratory staff were very kind and open to answering questions.

1703: None.

4326: It was fine; not the most helpful though.

5648: Lab was disorganized at the beginning and computer lab was unable to be used. Eventually figured out how to install jupyter notebooks. Labs were usually a little difficult and did not really help my understanding. Seemed more like busy work.

6511: Labs should have had more application-based questions and less theoretical portions. Expect some more guidance in labs to prepare for exam-style questions.

6521: The labs were challenging and slightly unfair to students who did not have any python background, such as myself. Sometimes when doing the lab, I ran into walls where I could not move forward because of a python coding problem. I would spend hours trying to fix the "error" issues, but I had to constantly reach out to CS majors to help fix the obstacles I had to continue further into the labs. I did appreciate the labs were not graded on accuracy but on completion.

9297: Helpful in understanding key concepts.

9378: The labs were usually helpful for understanding the content. I liked them. However, a lot of people had trouble setting up their python environment to run things. I hope that the lab room's computers can be set up to have the right python environment so that they are usable for the lab.

9829: Liked most labs.

12620: The labs were perfectly tailored toward the subject material, and my TA Noah was always knowledgable and helpful.

Comments on workload, resources, assignments, and assessments

209: Extremely fair exams so far that assess knowledge in a fair way.

1578: Homework was challenging but really grew my thinking.

1703: Kind of reasonable!

4326: Pretty light workload.

5648: Homework was very helpful and helped prepare for exams. Course-pack was mildy confusing and did not particularly help. Lectures were good but at times confusing.

6511: Require past papers for practice in order to understand how to write the reasoning questions on the exam. Homework should include more optional (questions for which feedback will be given on Gradescope, if completed by student. But don't affect homework grades) exercizes to make us more excited about the course content. The workload was ok, not too high, not too low that it becomes an easy class per se. Office hours: TA gave me incorrect answers which were then marked wrong on homeworks.

6521: I think the assessments were a little too difficult for me personally. It was difficult for me to wrap my head around some questions that really had to make you think to come up with a solution/response. I believe that I would have done much better on the exams if the questions mirrored work that was given in the homework; so that I could find how to apply algorithms and not try to figure out solutions myself with the application.

9297: N/A

9378: The homework was sometimes challenging but always helpful practice. I liked the reduction questions because they make you think creatively even though they tended to be the most difficult.

9829: All very manageable. Makes sense for an ENGRI.

12620: The grading is lenient, and fosters an environment that encourages students to learn and make mistakes in order to learn, rather than pushing students to use outside resources in order to preserve their grade. The homework assignment are very helpful and relevant to the material.

Comments on Environment-Diversity

1703: None.

4326: N/A

9297: N/A

12620: None.

Comments on Environment-Assistance

1578: The TA's were amazing!

1703: I didn't use much external help.

4326: N/A

5648: Office hours were helpful

6521: Office hours and the lab TAs were very helpful

9297: Many office hours available.

9378: The professor was easily approachable during office hours and very helpful.

9829: Love EdDiscussion!

12620: The professor and TAs were always happy to help and accommodate for students.

Page 10

Comments on Environment-Academic Integrity

1703: None.

4326: N/A

9297: N/A

12620: Nope.

Page 11

Comments on TA

1578: Owen Ralbovsky, Noah Schiff, Lily Young, and Emma Rethy! All made their office hours very readily available (even extending it at times) and answered questions with a lot of care and patience.

1703: None.

3050: Ben Collins

I would like to nominate Ben because he has been integral in my success in this course. When helping us understand a topic he ensured to explain it in an effective manner that allowed us to think and ask questions if we had any.

4326: N/A

5648: Owen Ralbovsky- very nice and helpful in lab, even explained hw problems when I have trouble

6511: Lily: was approachable and helped on assignments with patience. Passionate about the subjects of study.

9297: N/A

9378: Owen or Emma. Both were helpful and answered questions during labs. Also, I think there were people from the other lab section coming to my lab section anyways, so it was usually crowded and they had to help a lot of people.

10404: Owen Ralbovsky did an excellent job providing help when necessary on labs/assignments, but was also able to make sure the students were solving the problems for themselves. He clearly put effort in and cared about us learning the topics, as made evident by his final exam review lab at the end of the semester.

12620: I think TA Noah was a great TA. He was very knowledgeable.

Comments on Strengths

47: I think the organization was remarkable

569: Lectures are humorous and more engaging

1578: Homework problem sets

1703: None.

2561: The most helpful were lectures and homework assignments. The homework assignments gave a good understanding of what the tests were going to look like.

3630: The professor is funny and this allows lectures to be more engaging and informative.

3631: Useful

4269: The homework was very thought-provoking and educational. Even though it was challenging, help was made readily available through office hours, which helped enhance my understanding of the content in a digestible way.

4326: N/A

5506: The labs did help me gain a better understanding of the material.

5648: Homework assignments and lectures

5715: The recitation exercises and the homework were most helpful to my learning and engagement.

6220: homework assignments helped improve my understanding very well

6521: Professor Schalekamp was an excellent educator because of the way he taught in the lectures. It was very well organized, concise, and a fun learning environment.

6960: The professor was very engaging

9297: The teacher's attitude involved in the course. Lighthearted, humorous, and engaging.

9378: I really like the lectures. The pacing and organization is great.

9829: All the cool algorithms towards the end.

10404: Availability during office hours of both the professor and the TAs was very helpful, and they all provided great help. I appreciated the system of being able to work and cooperate with classmates as part of the course structure. It improved my learning and my experience with the course. I liked that the course was driven more by understanding the material than strictly grades and test performance as well. Professor Schalekamp did an

excellent job making each class engaging and interesting, he was a fantastic teacher.

12620: I think the Prof. Frans was pivotal to this course, and my success in it. He is an engaging and knowledgeable lecturer. Beyond that, this course made me excited to attend labs and do homework. Every single aspect of this course was enjoyable and contributed to my learning and engagement.

Comments on Weaknesses

47: No weaknesses

569: Lectures are a bit slow at times but overall it's fine

1703: None.

3630: Exams were not graded correctly multiple times. The labs were helpful but should have been more interactive and maybe even a little more challenging.

4326: N/A

5506: Maybe having more examples shown in class would have been beneficial.

5648: Needed more frequent practice with algorithms and types of problems asked on tests.

5715: The course packet was sometimes convoluted.

6511: More professor involvement during discussion sections would be helpful to clarify questions about lectures since office hours were not convenient sometimes.

6521: The homework should have had more manageable material sometimes.

9297: N/A

9829: Some lectures were a little boring.

12620: Nope, no weakness.