



Spring 2024 Course Evaluations - Danforth Campus

## Spring 2024 Engineering Instructor Report for SP2024.E81.CSE.468T.01 - Introduction to Quantum Computing (Ron Cytron)



Created Friday, May 17, 2024



Courses Audience: 136  
Responses Received: 129  
Response Ratio: 94.85%

### Report Comments

Welcome to your Instructor Report for WashU Course Evaluations. Below you will find response data from the specified course section. Responses to personalized questions appear at the bottom of the report.

The intention of this report is to provide feedback, and also to prompt improvement in areas that may be lacking. This report is accessible to appropriate department level and school level users, as determined by your school. We appreciate your dedication to our learning community at Washington University.

If you have questions about this report, please contact [evals@wustl.edu](mailto:evals@wustl.edu)

## Course Administration

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**Was a course syllabus or a course information sheet distributed or available online?**

Was a course syllabus or a course information sheet distributed or available online?

Options	Count	Percentage
Yes	121	100.00%
No	0	0.00%

**Did the syllabus explain the content and administration of the course (e.g., office hours, grading)?**

Did the syllabus explain the content and administration of the course (e.g., office hours, grading)?

Options	Count	Percentage
Yes	122	100.00%
No	0	0.00%

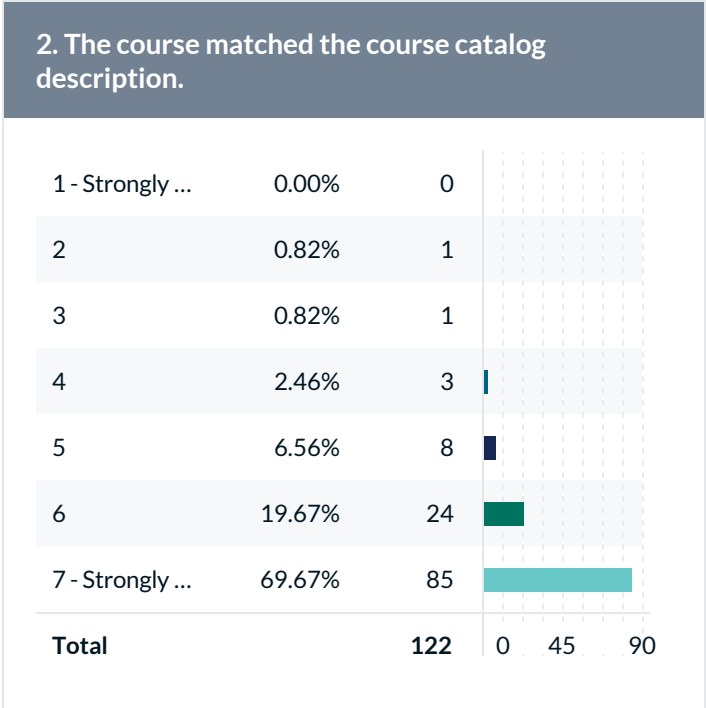
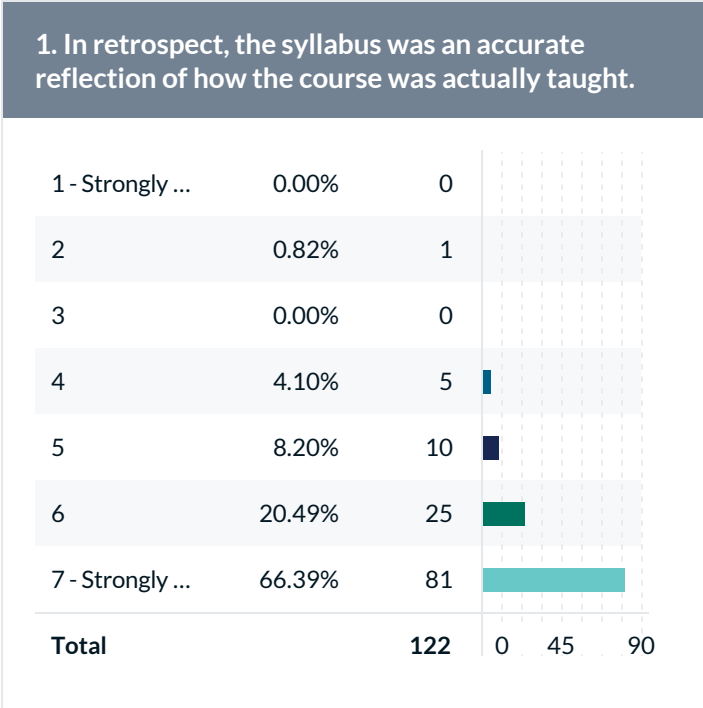
**Early in the semester, did your professor explain the expectations for academic integrity?**

Early in the semester, did your professor explain the expectations for academic integrity?

Options	Count	Percentage
Yes	122	100.00%
No	0	0.00%

Rating Scale Responses

Question	Subject			
	Response Count	Mean	Standard Deviation	Median
In retrospect, the syllabus was an accurate reflection of how the course was actually taught.	122	6.47	0.91	7.00
The course matched the course catalog description.	122	6.52	0.89	7.00



1. In retrospect, the syllabus was an accurate reflection of how the course was actually taught.



2. The course matched the course catalog description.



Please elaborate if you felt the course did not match the course catalog description.

Comments

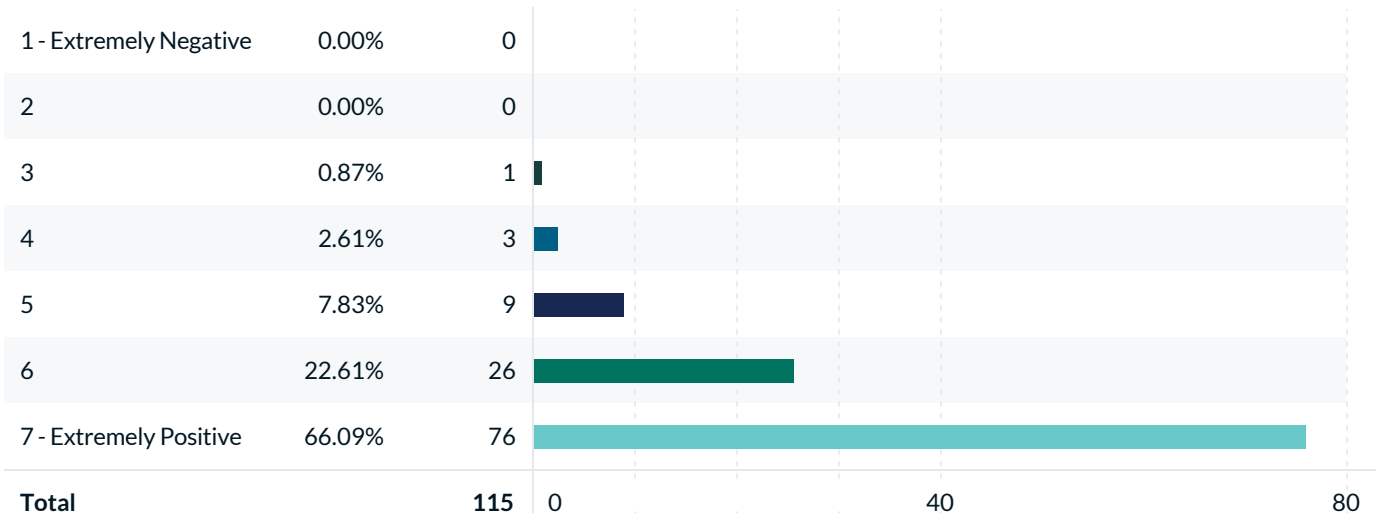
N/A

n/a

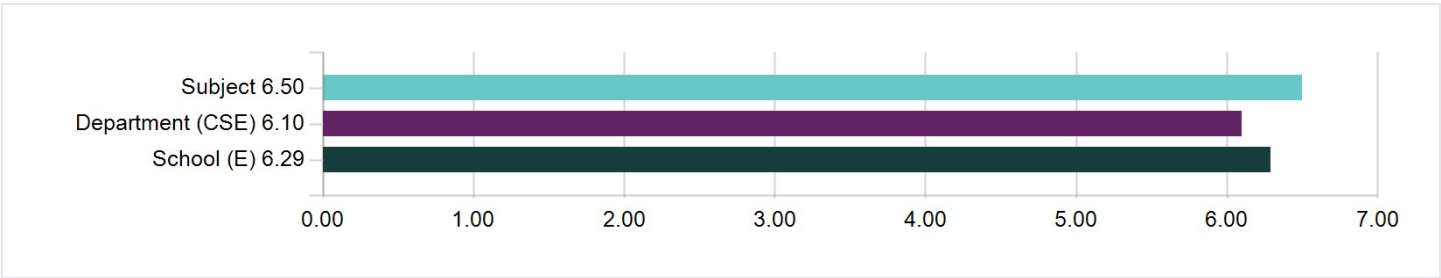
none

Please rate how well **Ron Cytron** promoted an inclusive learning environment with regard to the diversity of student personal backgrounds and identities.

Please rate how well **Ron Cytron** promoted an inclusive learning environment with regard to the diversity of student personal backgrounds and identities.



Statistics	Value
Response Count	115
Mean	6.50
Median	7.00
Standard Deviation	0.82

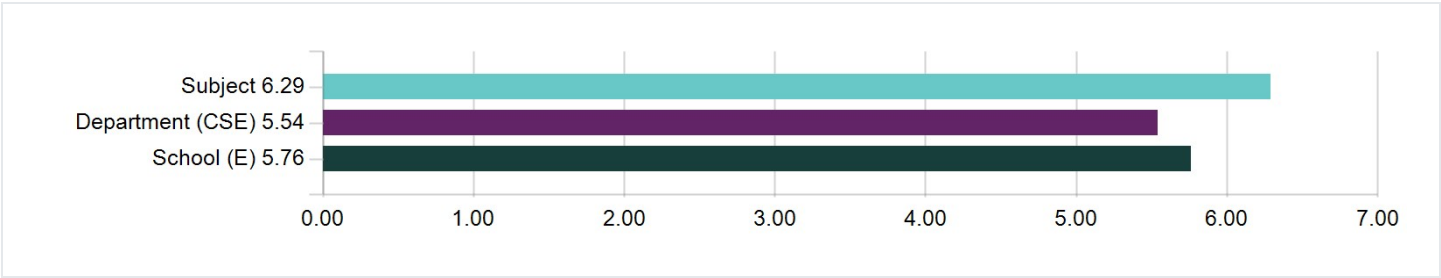
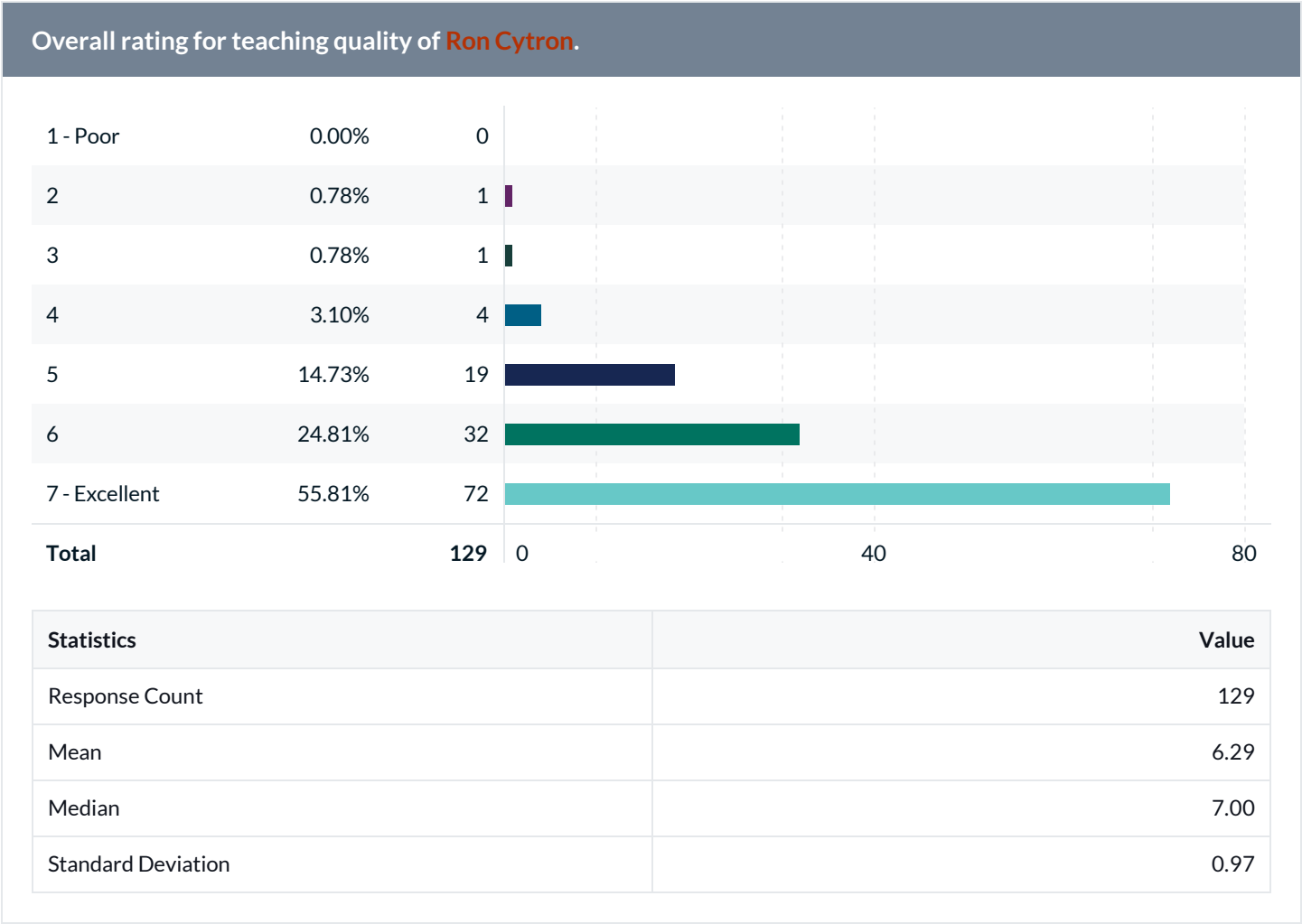


Where relevant, please give specific examples to explain your answer above.

Comments
N/A
no instance i saw of discrimination
N/A
Ron is just simply the best. He tries his best to make the class engaging and fun even though the class is very big
He was always considerate of everyone's situation and circumstances
He consistently responds promptly to students' inquiries on Piazza and via email. He is always willing to assist students and ensures that his classes are engaging, comprehensive, and captivating
Very engaging to everyone!
Overall good guy, but makes weird references to religion and makes jokes about his daughter thinking she knows everything and stuff like that. I'm just here to learn I don't need a clown professor that is why I would rate him a 6.
Professor Cytron was excellent at explaining concepts when students were confused and approached issues with grace
Student personal backgrounds and identities are irrelevant in the teaching of quantum computing, stop forcing your crap ideology on professors and students.
He was very considerate of everybody and made it a very inclusive learning environment for everyone.
The course is structured to give students plenty of leisure to keep up with the material and assignments. I am a student who struggles with physical and mental illness that often prevents me from completing schoolwork linearly, but I felt the course was more than accommodating for me.

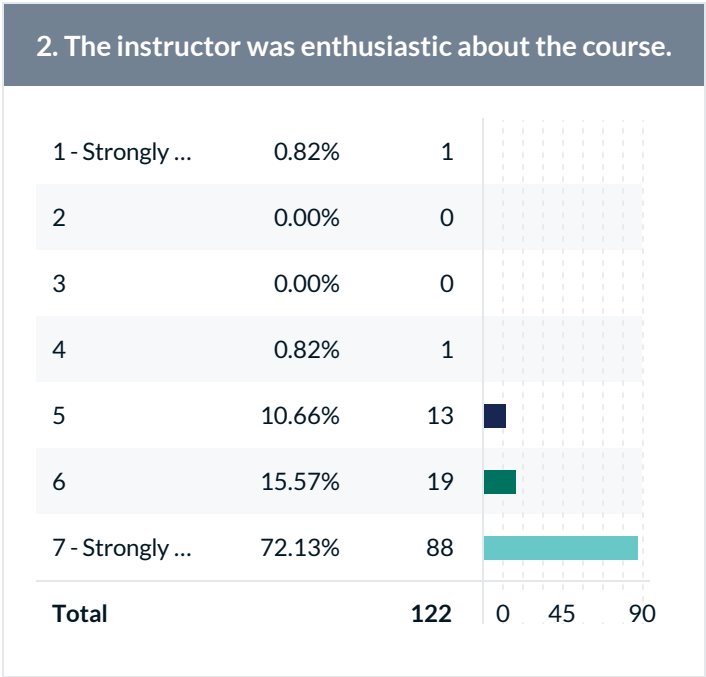
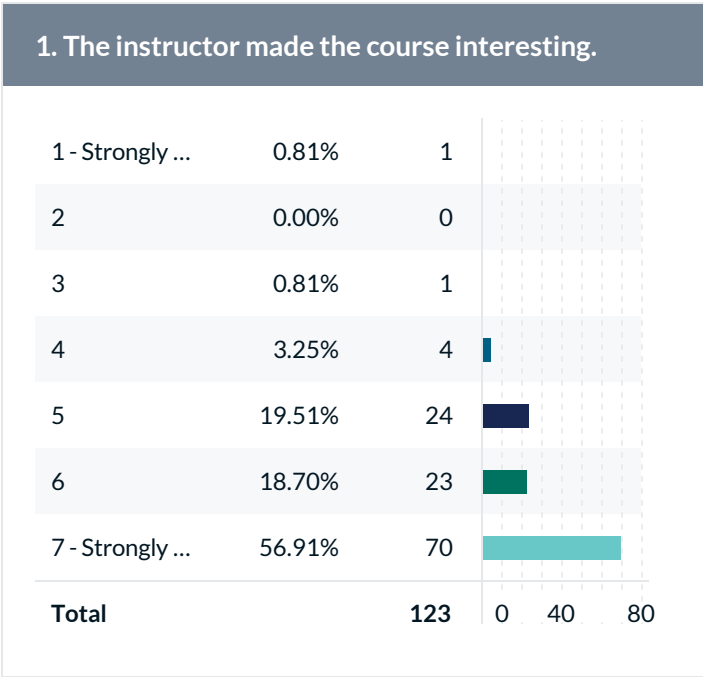
Instructor Evaluation

Overall rating for teaching quality of Ron Cytron.



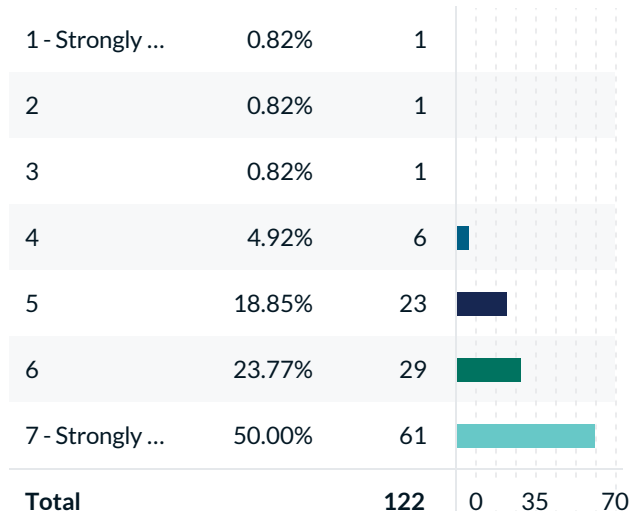
Rating Scale Responses for Ron Cytron

Question	Subject			
	Response Count	Mean	Standard Deviation	Median
The instructor made the course interesting.	123	6.24	1.06	7.00
The instructor was enthusiastic about the course.	122	6.56	0.87	7.00
The material was covered at a reasonable pace.	122	6.11	1.14	6.50
The instructor was available to answer questions (through office hours, email, etc.).	121	6.47	0.92	7.00
The instructor was well-organized and prepared for class.	120	6.45	0.96	7.00
The instructor explained the course material so that you could understand it.	120	6.13	1.20	7.00

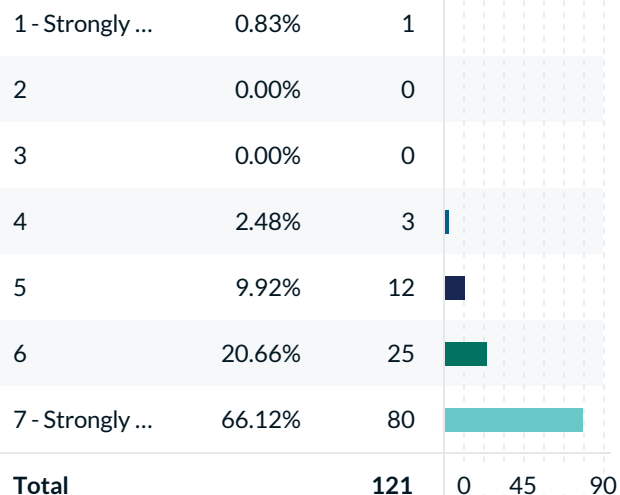




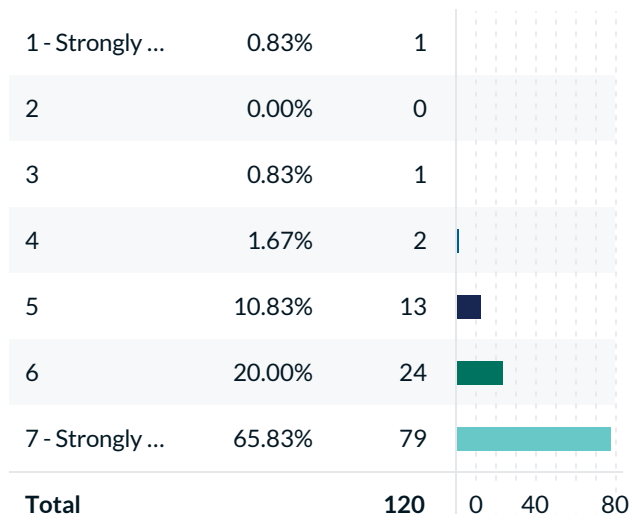
### 3. The material was covered at a reasonable pace.



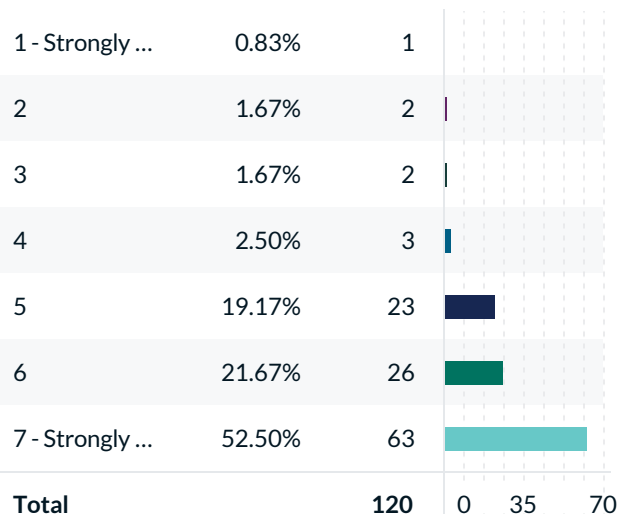
### 4. The instructor was available to answer questions (through office hours, email, etc.).



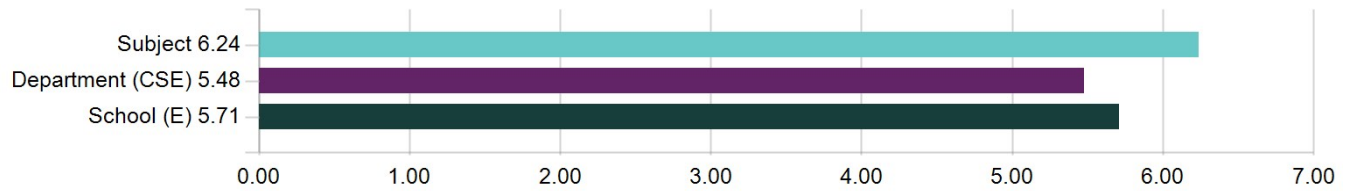
### 5. The instructor was well-organized and prepared for class.



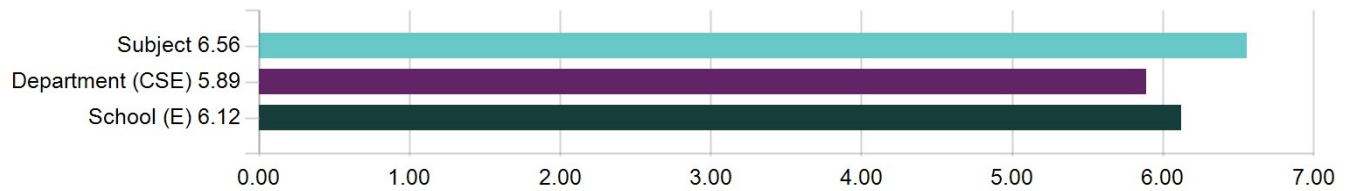
### 6. The instructor explained the course material so that you could understand it.



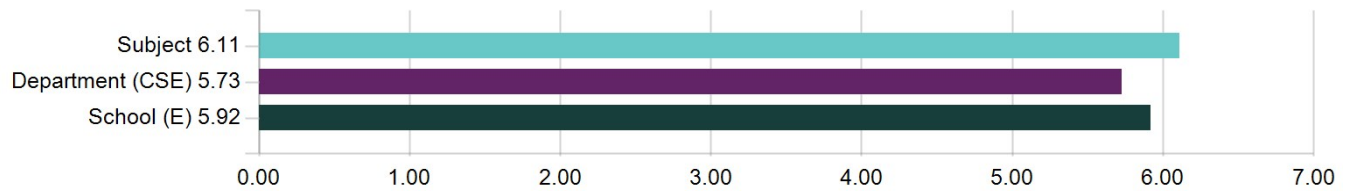
### 1. The instructor made the course interesting.



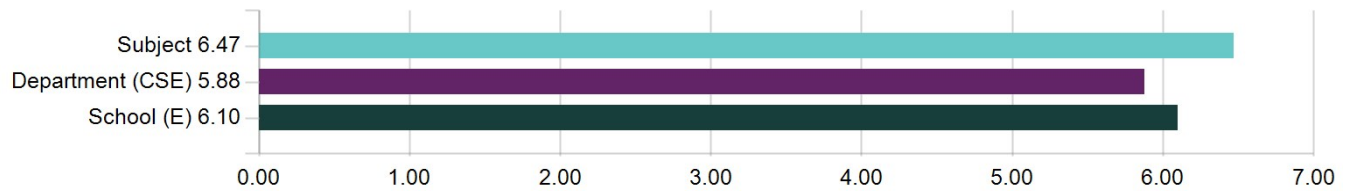
### 2. The instructor was enthusiastic about the course.



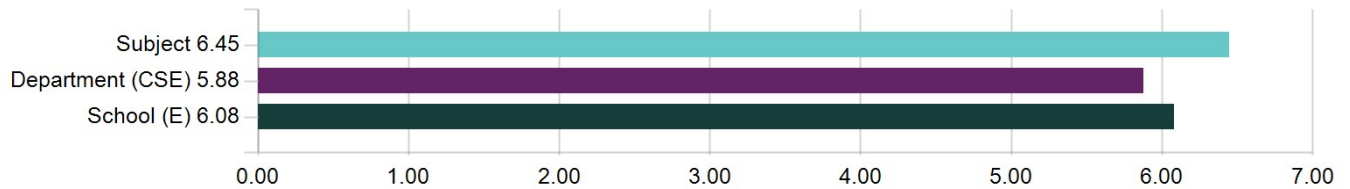
### 3. The material was covered at a reasonable pace.



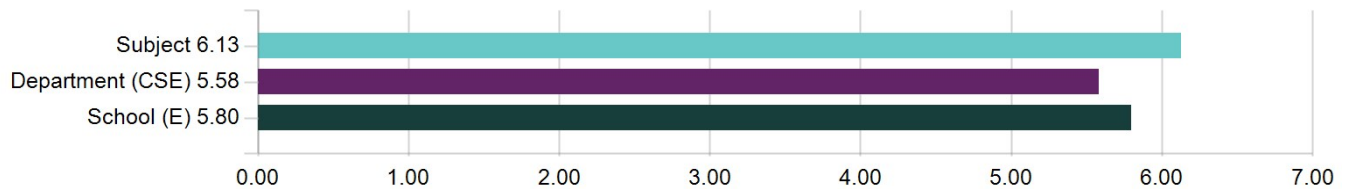
### 4. The instructor was available to answer questions (through office hours, email, etc.).



### 5. The instructor was well-organized and prepared for class.



### 6. The instructor explained the course material so that you could understand it.



Please elaborate if you felt the material was not covered at a reasonable pace.

#### Comments

N/A

Gets very dense at the end, tough to keep up once we get to algorithms.

everything was covered at a good pace. The content was only given if there was time to cover it.

none

At times lectures seemed a bit rushed considering the high level of material we are learning

The class could benefit from being 3 separate sessions during the week, as only 2 forced a lot of dense material to be presented without proper time to process it.

The pace of the course was a little slow for me personally, but I have some background in the material so I completely understand the progression Professor Cytron adopted and I think he did an amazing job teaching quantum concepts from the ground up

it is dense material from time to time

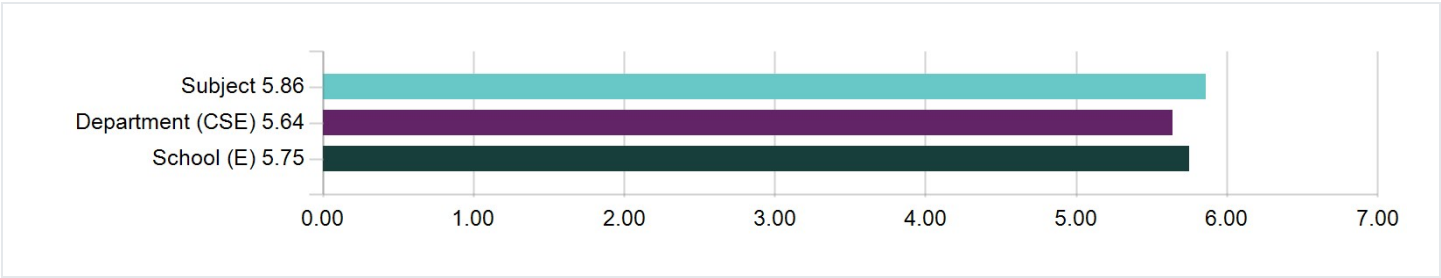
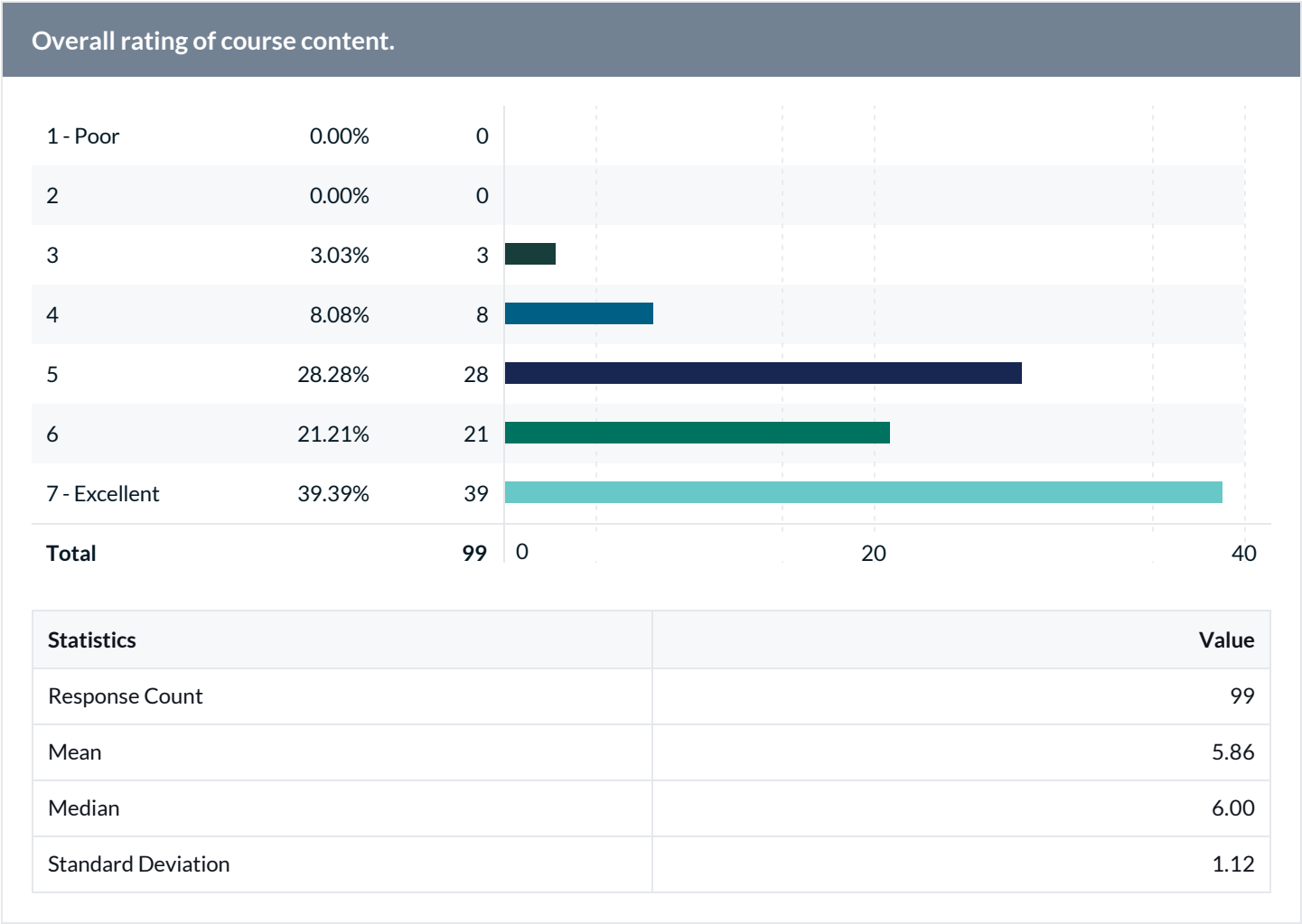
I think it was a little slow -- I would have liked a 400 level theory course to move at a faster pace and assume students have more mathematical maturity.

It felt pretty fast-paced.

I feel some difficult content was glossed over where it may have warranted extended explanation

Pace was reasonable, although it felt fast at times

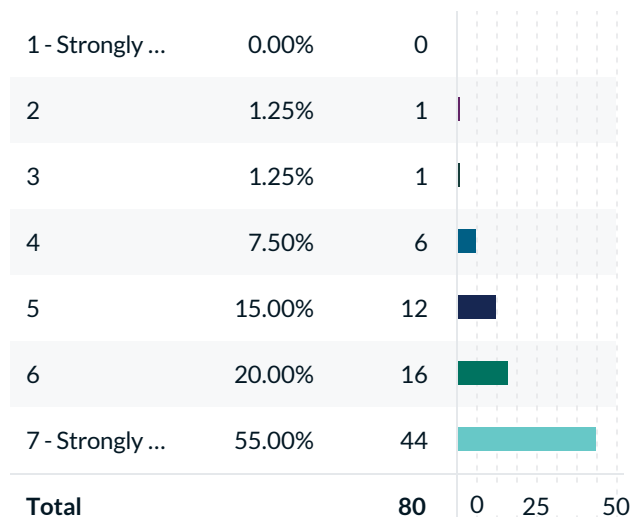
Overall rating of course content.



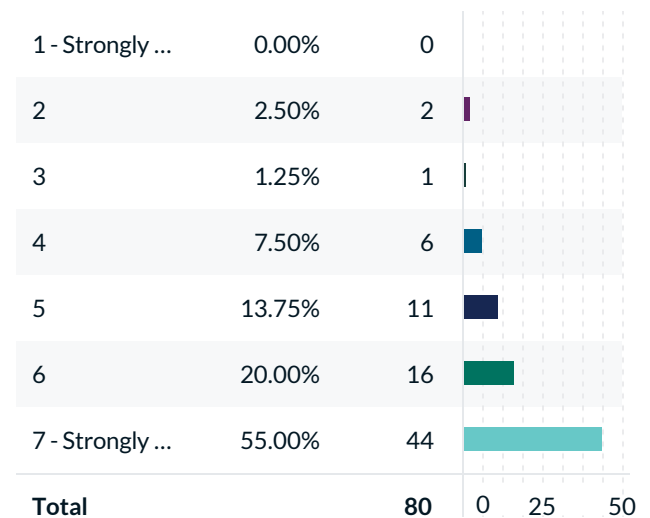
## Rating Scale Responses

Question	Subject			
	Response Count	Mean	Standard Deviation	Median
Textbooks/readings complemented the lectures.	80	6.16	1.14	7.00
Textbooks/readings were useful.	80	6.13	1.23	7.00
Assigned homeworks were helpful and relevant to the course.	113	6.40	0.90	7.00
There was reasonable time to complete assignments.	112	6.36	1.09	7.00
Assignments were returned within a reasonable period of time.	113	6.51	0.93	7.00
Comments on graded work were helpful.	111	5.92	1.39	6.00
Labs were an effective supplement to the course.	68	6.25	1.10	7.00
The course material drew upon real world applications.	110	6.15	1.23	7.00

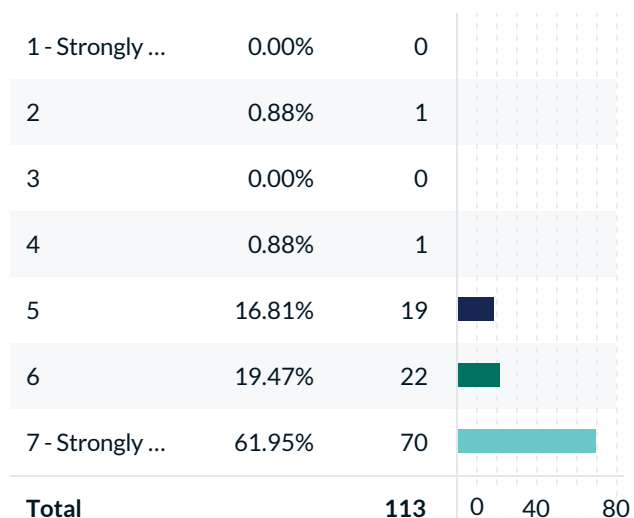
### 1. Textbooks/readings complemented the lectures.



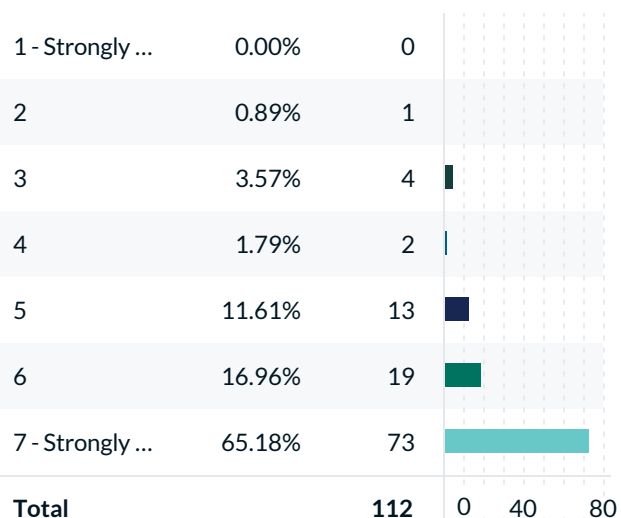
### 2. Textbooks/readings were useful.



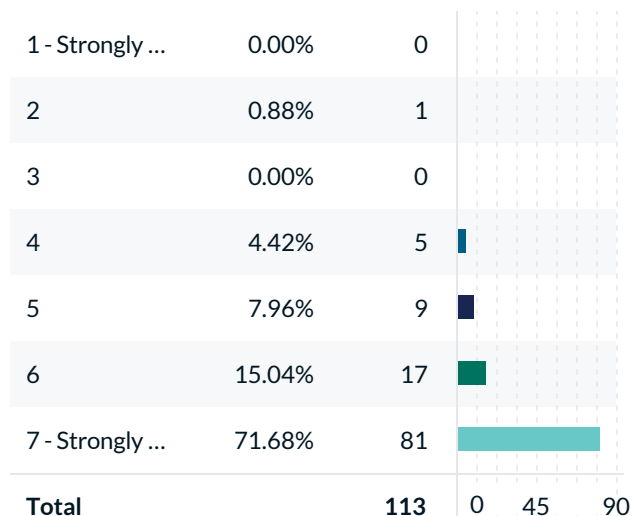
### 3. Assigned homeworks were helpful and relevant to the course.



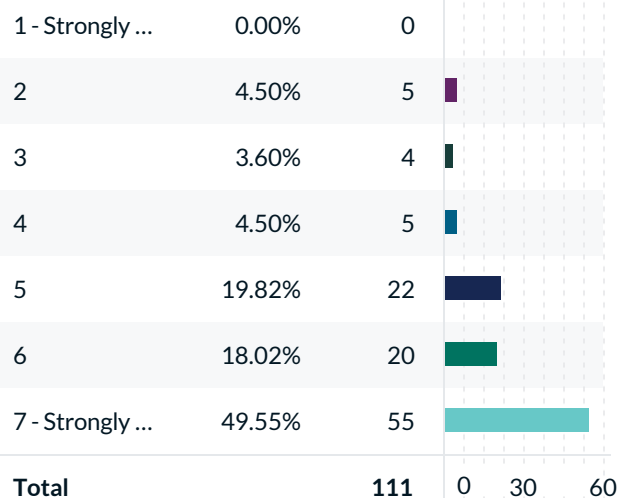
### 4. There was reasonable time to complete assignments.



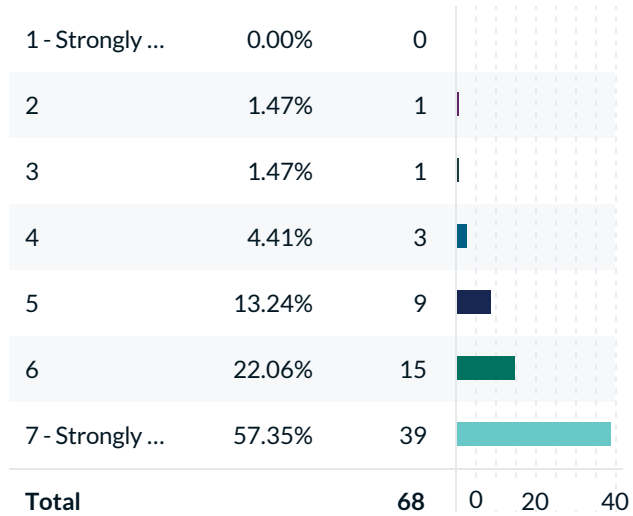
### 5. Assignments were returned within a reasonable period of time.



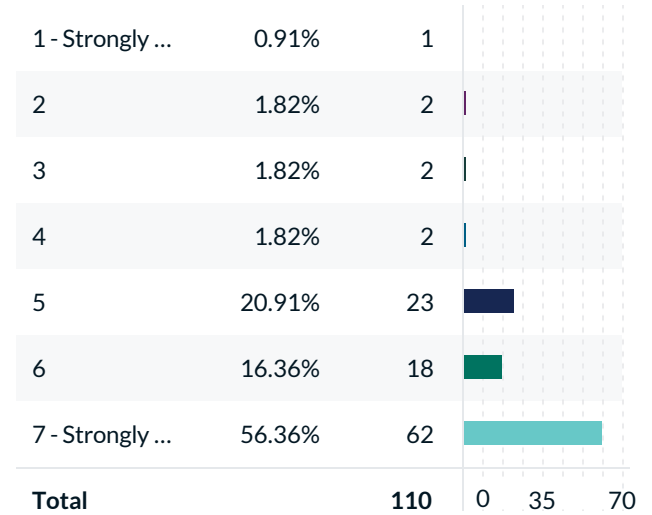
### 6. Comments on graded work were helpful.



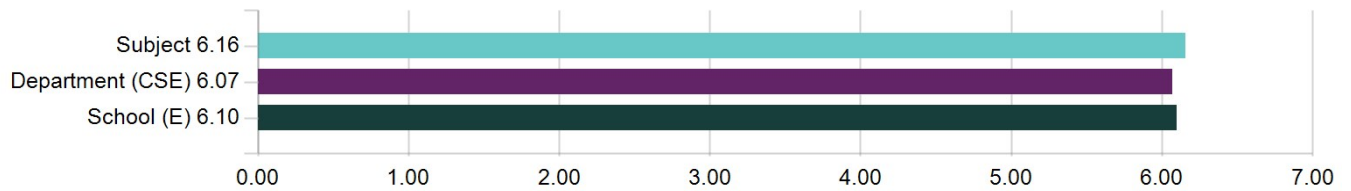
### 7. Labs were an effective supplement to the course.



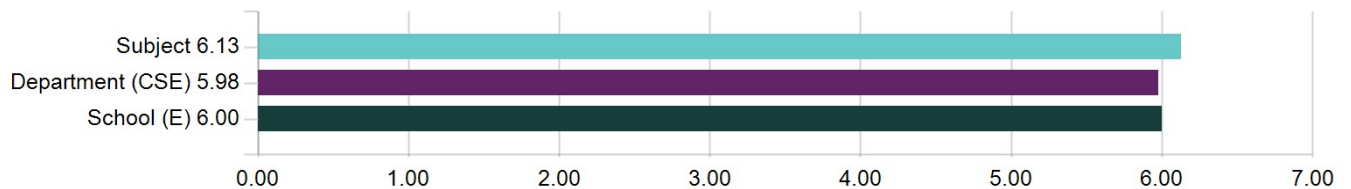
### 8. The course material drew upon real world applications.



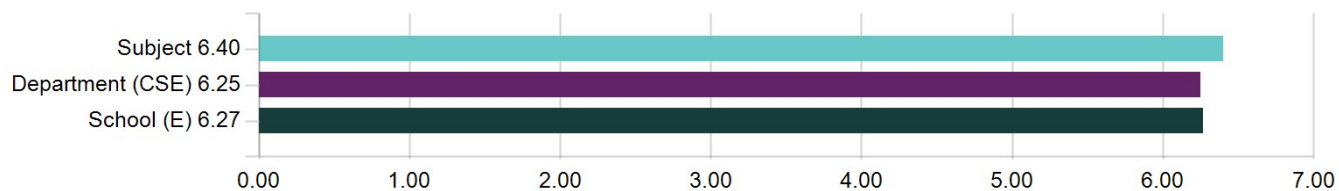
### 1. Textbooks/readings complemented the lectures.



### 2. Textbooks/readings were useful.



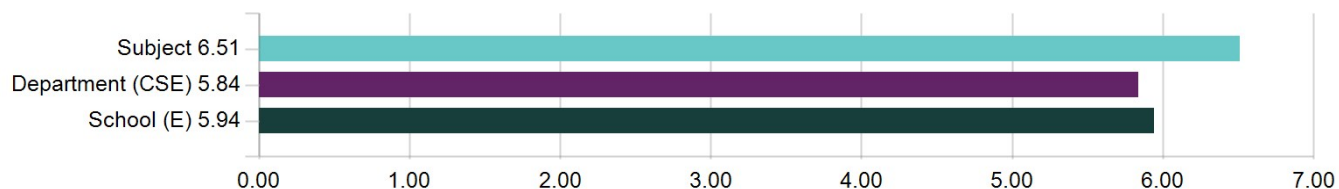
### 3. Assigned homeworks were helpful and relevant to the course.



### 4. There was reasonable time to complete assignments.



### 5. Assignments were returned within a reasonable period of time.



### 6. Comments on graded work were helpful.

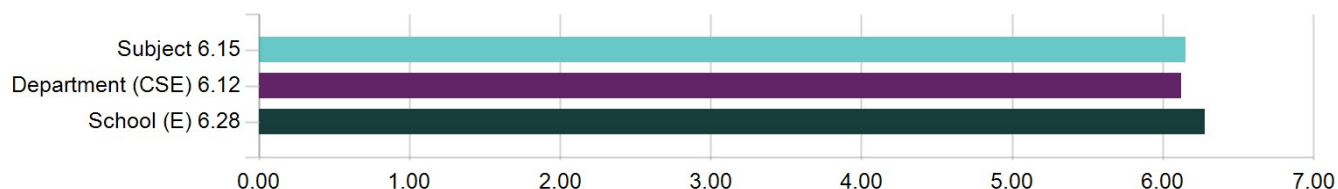




### 7. Labs were an effective supplement to the course.



### 8. The course material drew upon real world applications.



Please elaborate if you felt the textbooks/readings were not useful.

#### Comments

Not very much reading material provied.

readings were helpful

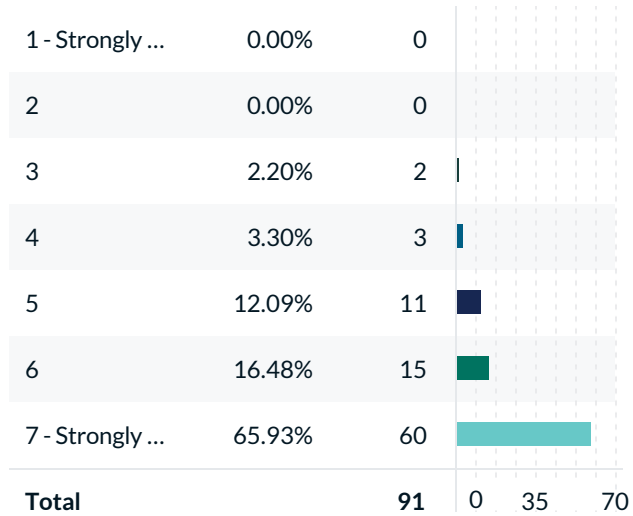
N/A

We just never really used the textbook. At some point, it was never updated what section of the book we were in. Not that we needed the textbook since the slides and lectures did a pretty good job already.

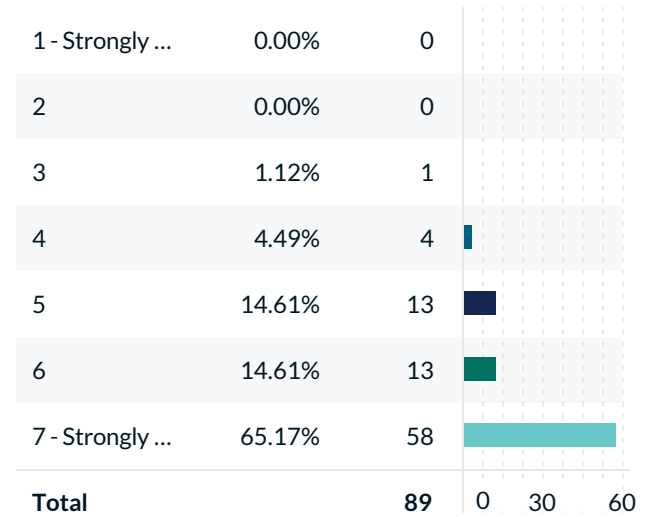
### Rating Scale Responses

Question	Subject			
	Response Count	Mean	Standard Deviation	Median
The assistant to the instructor was effective.	91	6.41	0.98	7.00
The assistant to the instructor was available and responsive to questions.	89	6.38	0.97	7.00
Recitation section served to enhance your understanding of the course material.	64	6.44	0.94	7.00

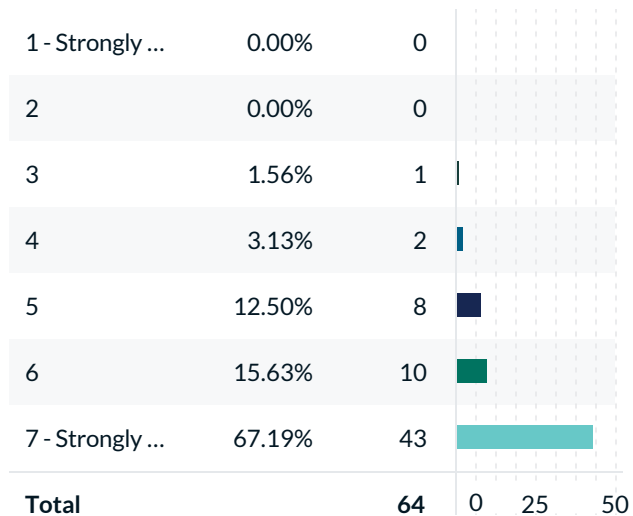
### 1. The assistant to the instructor was effective.



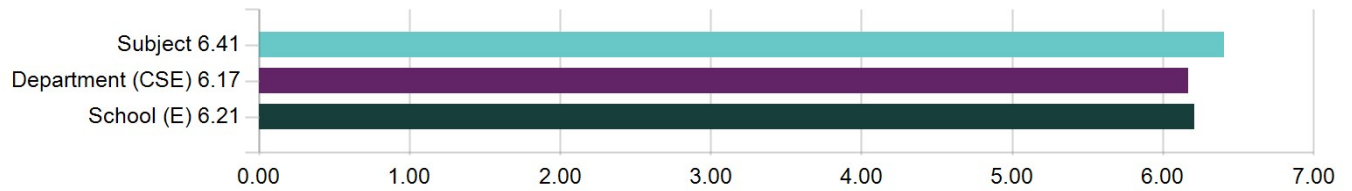
### 2. The assistant to the instructor was available and responsive to questions.



### 3. Recitation section served to enhance your understanding of the course material.



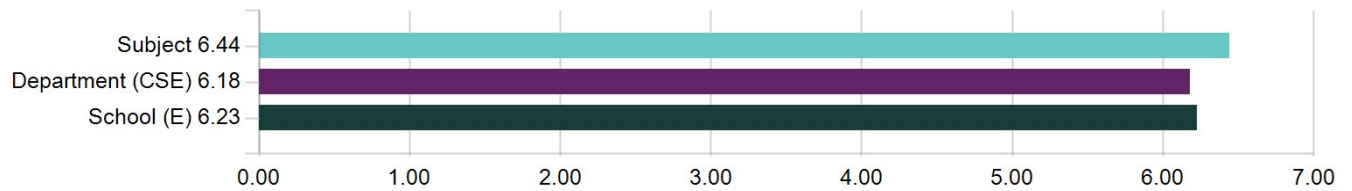
### 1. The assistant to the instructor was effective.



### 2. The assistant to the instructor was available and responsive to questions.



### 3. Recitation section served to enhance your understanding of the course material.



## Please comment on the effectiveness of the assistant to the instructor (AI).

Comments
Very helpful during office hours.
the ta's were extremely helpful. I dont know the ai
None
Very helpful in describing many details that could've been missed during lecture.
Promptly.
Explained content in simple enough terms to help us capture abstract concepts.
I often attended office hours held by Sam Haines and Sri Gadde. They were extremely instrumental to ensuring my success in the class and helping me develop a deeper understanding of the material.
They were always available during office hours and able to quickly and clearly explain concepts. You could always get help if you showed up.
Some of the TAs were very responsive and helpful during office hours, others frequently were not on their Zoom links during office hours times which made it harder to get help especially when it was Zoom-only office hours. But both Sams were great at clarifying any questions and helping with homework.
Very helpful in TA hours to help with homework questions.
did not talk to AI
Sam is great!
Helpful at times

## Please comment on the effectiveness of the recitation section.

Comments
N/A
this class did not have recitations
N/A
There are no recitations. Not that it is needed since we have office hours instead.
No recitation
We didn't have recitations.
N/A

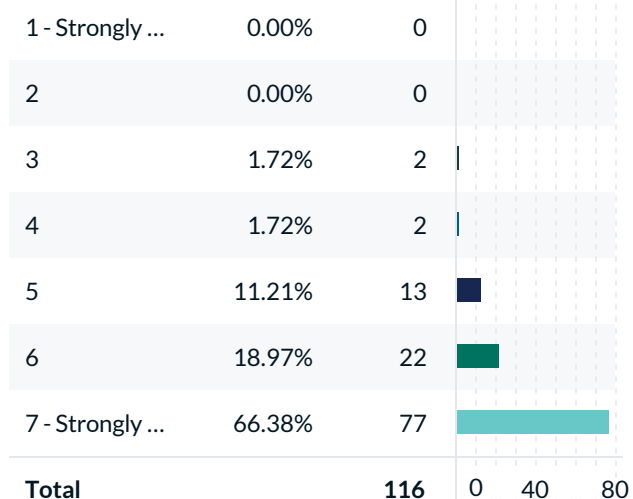
Expected grade for this course.

Expected grade for this course.		
Options	Count	Percentage
A	67	69.79%
B	25	26.04%
C	2	2.08%
D	0	0.00%
F	0	0.00%
P	2	2.08%

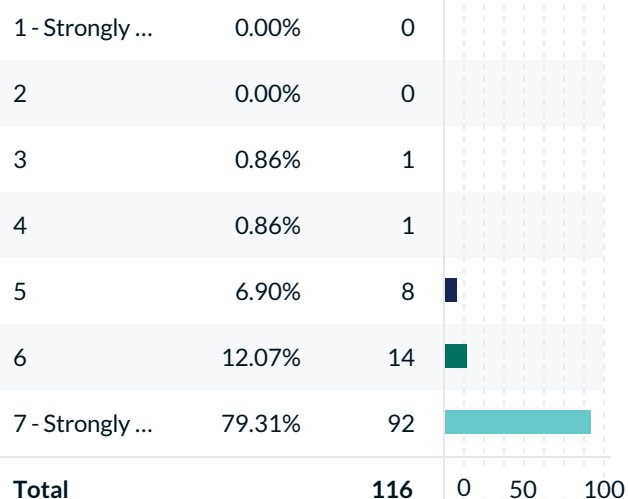
Rating Scale Responses

Question	Subject			
	Response Count	Mean	Standard Deviation	Median
Exams reflected material taught.	116	6.47	0.89	7.00
Adequate time was given to complete exams.	116	6.68	0.72	7.00
Your grades to this point accurately reflect your understanding of the material.	115	6.37	1.02	7.00
The grading system was consistent and equitable.	114	6.37	0.97	7.00

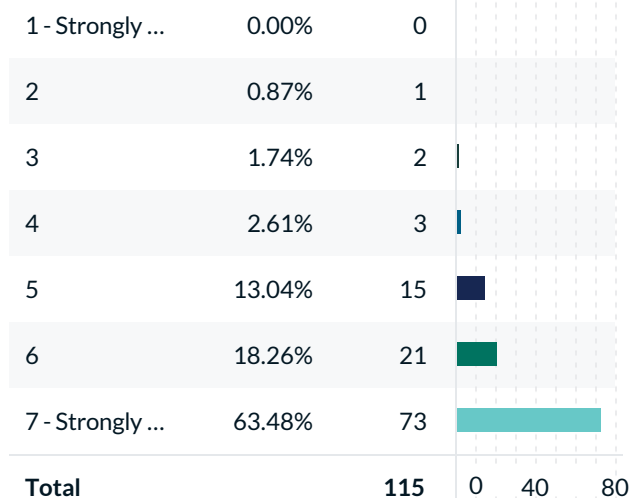
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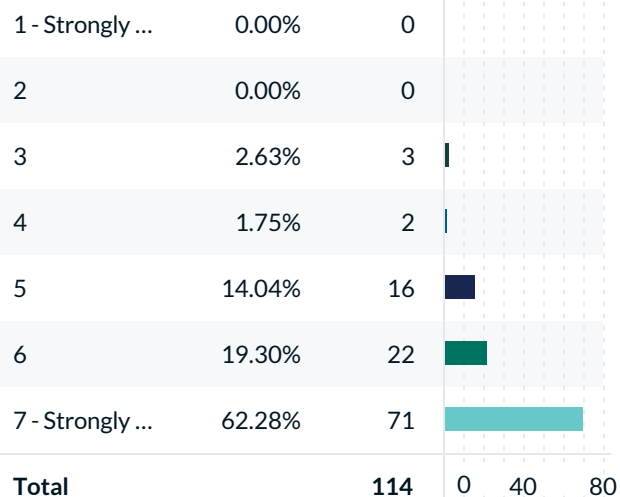
### 2. Adequate time was given to complete exams.



### 3. Your grades to this point accurately reflect your understanding of the material.



### 4. The grading system was consistent and equitable.



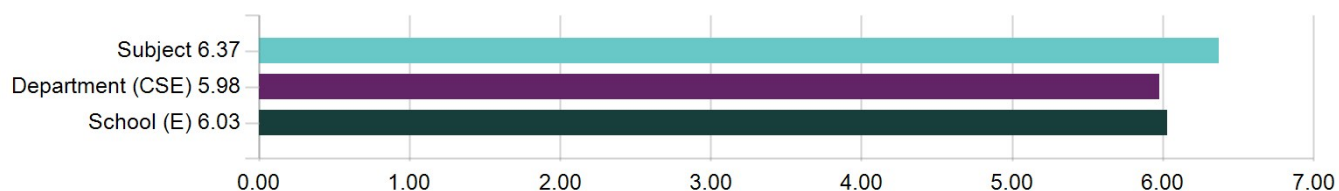
### 1. Exams reflected material taught.



### 2. Adequate time was given to complete exams.



### 3. Your grades to this point accurately reflect your understanding of the material.



### 4. The grading system was consistent and equitable.





## Please elaborate if you felt the grading system was not consistent and equitable.

Comments
N/A
The hard deadlines are rough. Even though I am still expected to get an A in this course I feel like there should be some leniency if people forget to turn in the homework or have something come up.
The "end of module surveys" sneak up on you. Didn't even realize we had them for a while, ended up significantly lowering my grade just forgetting to do them. I suppose that is on me though.
nice grading scale
None
Considering the amount of work it takes to achieve some of the answers and the multiple complex topics that it takes to understand just one problems, there should have been more partial credit given in the homework and on the exams. Did not like the all or nothing grading for a class as difficult as this
Some problem sets definitely felt more weighed compared to other sets. Other than that, everything else felt consistent.
The grades do not reflect the understanding. On one occasion I made a small mistake and was denied partial credit for the question despite using the same concept later on the same assignment. There is also weird wording on the questions which can be tricky. Another example was that I asked for an extension for a simple survey that I missed and realized 10 minutes after it was due. The professor denied the extension, which is fine as it was my mistake, however later in the semester when other students asked for an extension it was granted. It was only a few points so it does not matter but I don't think it is fair to arbitrarily grant extensions like that. As a side note I think due dates should be more consistent for all of the assignments to avoid this issue.
No grading system should be equitable, as that would mean equal outcome for everyone regardless of effort or demonstrated ability, which is the opposite of fair. The grading system for this class was both consistent and FAIR.

About how many hours per week did you spend on this course outside of class?

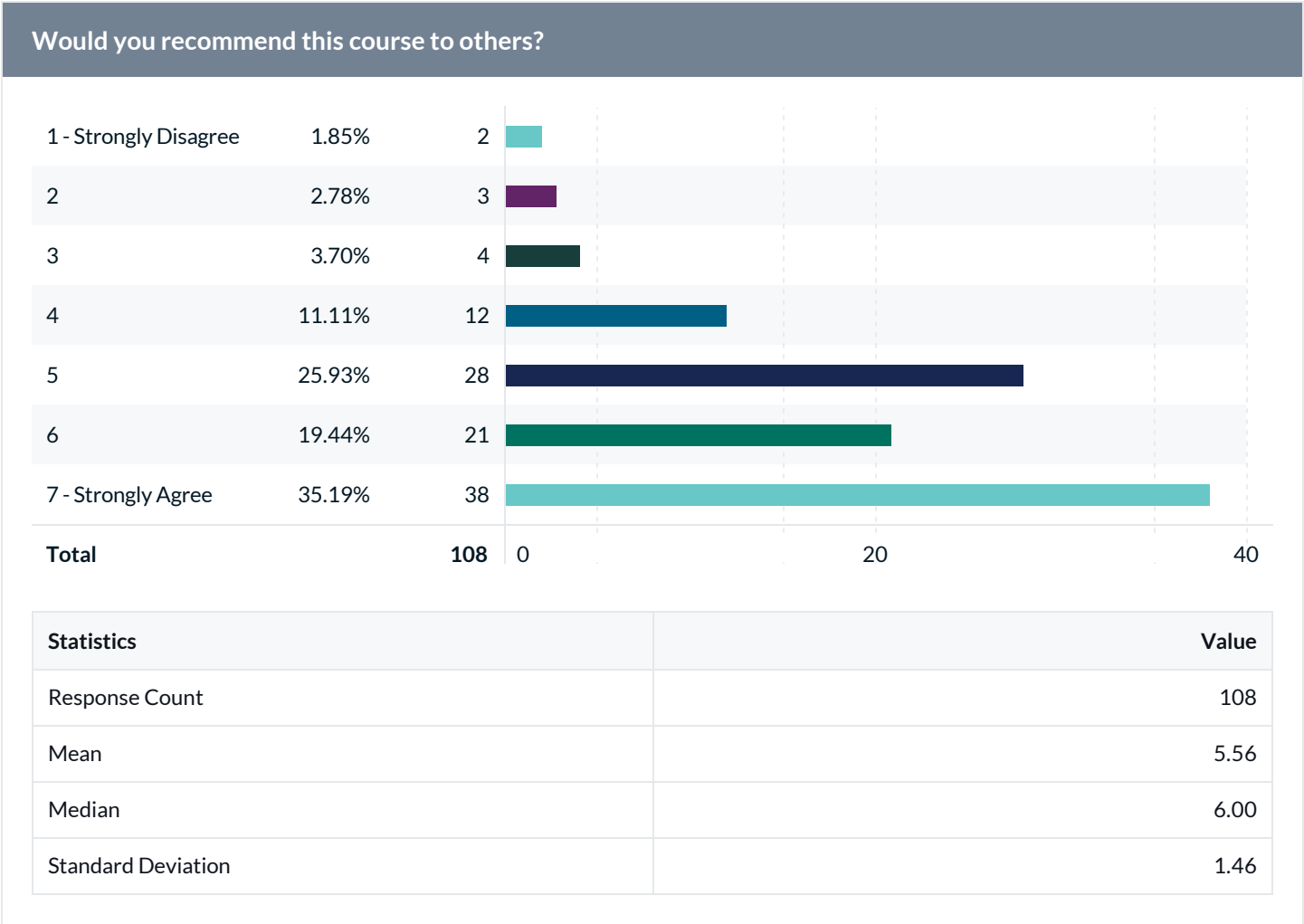
About how many hours per week did you spend on this course outside of class?		
Options	Count	Percentage
0	1	0.90%
1-3	27	24.32%
4-6	51	45.95%
7-9	18	16.22%
10-12	10	9.01%
13-15	2	1.80%
Over 15	2	1.80%

## What percentage of the lectures did you attend?

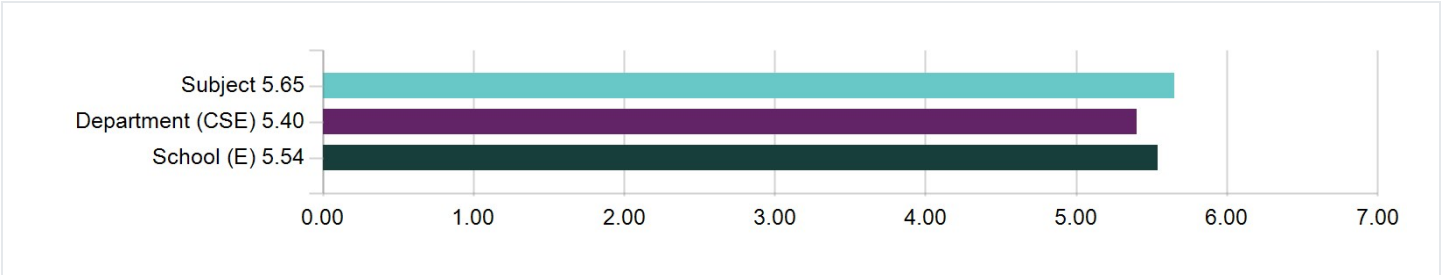
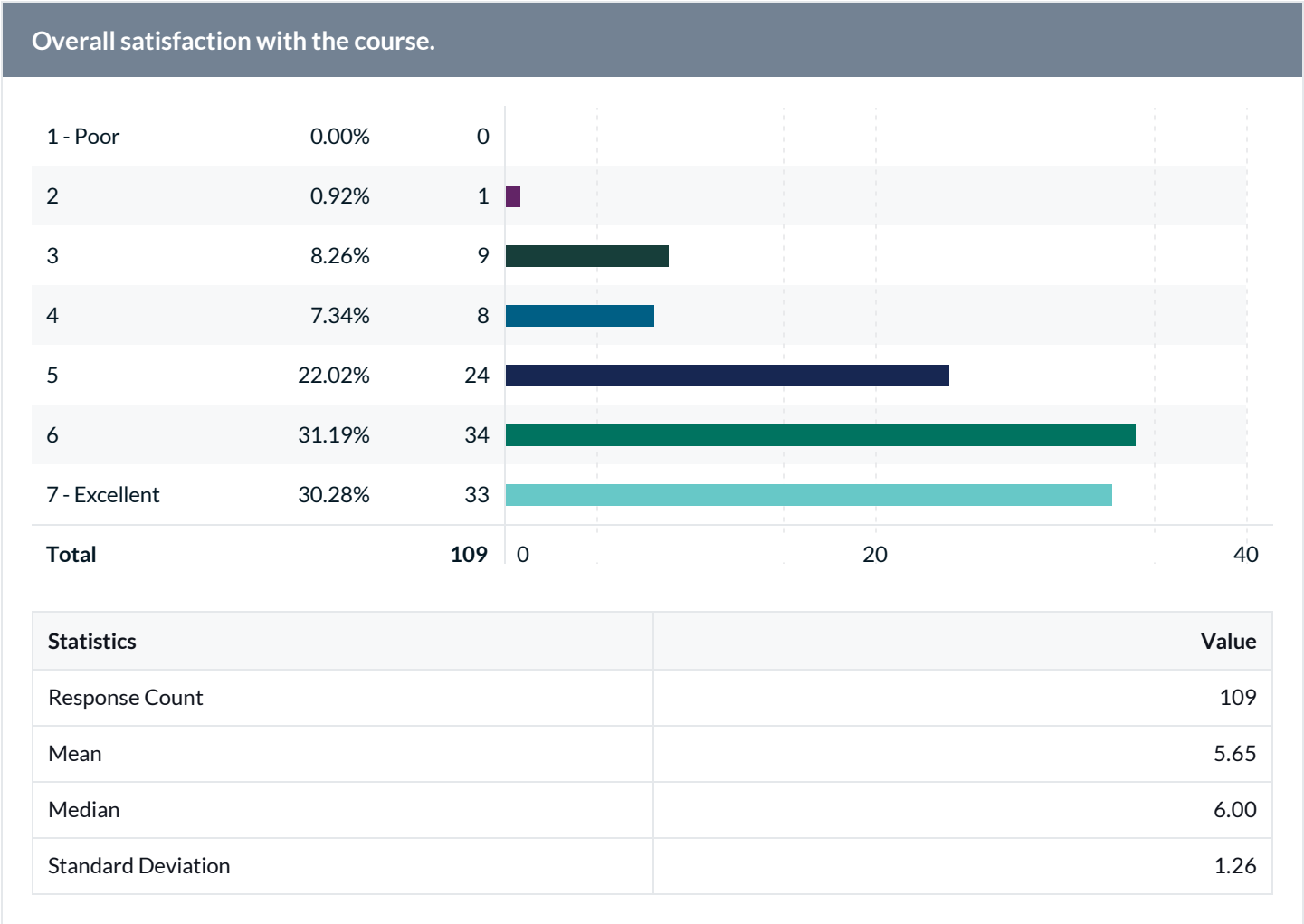
What percentage of the lectures did you attend?

Options	Count	Percentage
0%	2	1.83%
10%	3	2.75%
20%	5	4.59%
30%	2	1.83%
40%	2	1.83%
50%	20	18.35%
60%	8	7.34%
70%	10	9.17%
80%	13	11.93%
90%	30	27.52%
100%	14	12.84%

Would you recommend this course to others?



Overall satisfaction with the course.



Any comments on why you did or did not attend lecture?

Comments
Was working during some lectures.
The teacher is awesome
I was able to learn as effectively through the slides. It was also just a difficult timeslot for me to attend.

Comments
Just got caught up with other stuff and was taking this class pass/fail.
busy with other classes if i didnt go.
N/A
Was feeling sick
Other conflicts such as weddings or conferences
I had exams on those days, (347) and I was sick quite often this semester.
Quantum computing has always been an exciting topic. As it represents the uncertain future of contemporary computing, I think exploring this brand-new and hopeful field promises to be a truly wonderful endeavor.
N/A
I work full time so it was hard to make it sometimes. Also the lectures can be confusing because examples are so drawn out and if you loose your attention to the explanation it is easy to get lost and it makes the lecture useless.
Professor Citron is a great lecturer. Even though the slides were pretty thorough and available to us outside of class, I felt like his explanations were crucial to my understanding of the material.
I only missed lectures for significantly important reasons including sickness or academic/professional excursions, Professor Cytron's lectures were compelling and well worth attending
Thorough lecture slides could make self-teaching material an acceptable alternative to attending lecture if missing lecture was critical due to other commitments.
Dr. Cytron's slides are very comprehensive, but having him in-person to go through each step, point out common confusion, etc. really aided in my understanding.
I really enjoyed all of the lectures which is why I attended all of them.
I found it more helpful to learn it myself
I was physically unwell throughout the semester and had to go to the ER/Urgent Care on more than one occasion. It strongly interfered with my ability to attend lectures regularly, but I attended whenever I could.
Even though the slides were straightforward, Professor Cytron did a great job of further breaking down the concepts/problems during the lectures.
I went in the beginning and just felt so lost I kind of just gave up. I wish I had known a bit more what I was getting into, its largely my fault for not understanding what a theory class contains. Just way more math than I was expecting and, at this point, I'm just done with doing it.
Illness caused me to miss one lecture
With a busy schedule, it is sometimes difficult to make it to a late-day lecture
Slides were enough

## Comments

## What did you like most about this course?

Comments
The content.
Real-world applications
The teacher is awesome
The slides were very helpful and effective.
I enjoyed the math behind the quantum circuits that we studied and the explanations in class that made the material easy to understand.
The content is very interesting, and the professor is amazing.
I liked the beginning, just learning about quantum in general.
Very thought provoking lectures and interesting assignments for a great, new field!
interesting topic
Lecture slides
The qiskits were fun applications of the material.
The new take on all of the interesting information provided
Ron Cytron
The content was interesting and genuinely felt like I might use it in the field I am interested in.
The professor with his awesome teaching materials.
Combo of physics, CS, and math thru an engaging format
I liked getting a chance to run the code on a quantum computer.
I loved how the course topics flowed from one to the next, making a technical story out of the material.
I liked the qiskit assignments the most
I'm not sure
The complementary illustration of theoretical concepts and application in simulated and actualized quantum circuits
I loved how cool the subject matter was (i.e. how quantum computers theoretically to break modern day cryptography and solve all sorts of problems), the relevance of homeworks and exams, and how clear Dr. Cytron was at explaining extremely complex topics.
How much I learned from the content. I loved learning so many things.
The topics of quantum are fascinating
QFT
The structure fit my style of learning well. I felt as though I could keep my own pace outside of class and succeed.

Comments
I was really excited to take this class because my post-grad job is in cyber security, so I was wanting to have a very basic understanding of QC.
I liked how everything was released really early and I had time to work through it myself and also go to office hours if I got stuck.
The professor!
Exposed me to an area of computing I wasn't familiar with.
The quiskit assignments
This course is very interesting for a engineering background student and the instructor is very enthusiastic when teaching.
It was a new topic that was unlike any other classes available
Quantum theory is interesting, and Professor Cytron's teaching style makes it easy to explore this theory
I really like how it combines theory and application!
How it built a foundational knowledge of quantum sciences

## How could this course improve?

Comments
I didn't need all of the proofs provided. Sometimes I would rather take your word for it sometimes.
Make recordings for lectures available.
The teacher is awesome
Have some sort of extension system. Incredibly hard and strict deadlines cause unnecessary stress. Instantly losing all credit for an assignment if you submit it 1 minute late is excessive. I understand that we are given a week to finish each assignment and that singular assignments aren't that long, however, this ignores the fact that life does not revolve around one singular class. I enjoyed this class but if something comes up or I have an incredible amount of work over the course of a couple days I think that there should be some leniency.
1 or 2 more qiskit assignments could be given to apply more of what we have learned to simulated quantum computers. Also, the boxes around the responses on homework assignments in gradescope were sometimes too restrictive, which made submitting assignments unnecessarily time-consuming by trying to rewrite answers to fit in those boxes.
I think slowing down a bit once we get to algorithms would be good, got really lost.
I wish that there were smaller sections and more office hours. Office hours were often too busy to be individually useful and paying attention in class is hard in a huge lecture hall.
Working towards clearer explanations with different kinds of examples could help.
everything was do able in my opinion
none



## Comments

I felt like the problems on the homework assignments were mostly different from the problems seen on the exam. I just don't think it's fair to have problems on exams that we haven't had the chance to practice with beforehand and receive feedback on. Also, give us announcements when surveys are posted on canvas.

More time to complete homework assignments, they are kind of rushed at the beginning of the semester. More separation of lecture material, its very dense and requires a bit of time to process. Return graded work with the correct answers, as simply marking it wrong doesn't really help understand why one missed a question.

To people that is actually interested in this material, this is a wonderful class already. Just wish we could work more with the IBM QCs to gain more experience, but I can also learn this on my own

Although I mentioned I felt it was practical, I wish the IBM backend was easier to deal with as qiskits, although very good, felt very prone to errors due to environments and such.

More structured lecture slides

Due dates should be consistent for all of the assignments. Examples should be more concise or lecture recordings should be provided because losing the point early on makes it hard to understand what goes on in class.

Maybe a better outline in the beginning of how the course material will progress, and what we will get to by the end of the semester.

Maybe compile the information in the slides into a textbook for easier reference.

Have participation contribute more to our grades and have homework grades contribute less

Increase the frequency of Qiskit assignments

The IBM quantum computer in qiskit was pretty frustrating lol.

I would like a 5 minute break in the middle of the 120 minute lecture (we were giving a 2 minute break sometimes, but it was closer to the end than to the middle).

N/a

The material was covered at a less formal level than I would've liked, for example we didn't cover density operators. It often felt like we were more so learning the concepts of and intuition for quantum computing rather than the "actual" material. I feel like you could reasonably expect a greater level of mathematical maturity from students taking the class.

Maybe spacing out the assignments a little more in the first half of the semester so that two assignments are never due the same week or same day.

Just make it clear that this is a math heavy course and if you're not up for that save yourself some pain and drop it. Interesting stuff, but you have to be willing to do the math.

Maybe provide detailed reading for topics covered in lectures

The first half of this course is more funny cause it used more visible and concrete methods like the website that could set a bomb. But the last half contains too much math. I know Quantum Computing is a course focusing most on math, but honestly, that is kind of boring for me.

I think at times the lecture material can get messy/unclear and it would be helpful to edit the slides for next semester.

There was a lot of hand waving, especially at the beginning, where the lecture was like "I promise this is gonna make sense in like two minutes when you see where we're going", I feel that material could have been reorganized maybe? At the time I found it disconcerting

N/A; I loved it!

## Comments

Make it more digestible material

## What did you like the most about Instructor **Ron Cytron**?

### Comments

His jokes

Very enthusiastic

The teacher is awesome

His obvious love for the topic. He spent a large amount of time creating the text for this course I found it very helpful.

Ron is incredibly kind and friendly, and his explanations of the material were very clear and easy to understand.

Amazing guy, no complaints. Great teacher, great guy, hoping to take more courses with him.

Enthusiasm for the subject

Enthusiasm and great dedication toward explaining topics with passion.

nice guy

none

He was enthusiastic and always ready to help students.

He was very welcoming and enthusiastic about the material, and was very eager to explain in more detail concepts.

He's funny, enthusiastic about the course, love his students. What else can you ask for from a professor?

Everything, great instructor.

Genuinely such a thoughtful and kind professor!

His passion on teaching and helping students.

Passionate about course and very helpful!

He is approachable and is willing to answer questions

Amazing lecturer!

Passionate, professional, patient, considerable and respectful. Excellent in both in class and out of class

Enthusiasm

Excited about course content

Very kind and understanding

Compelling lecturer and generally enthusiastic, incredibly intelligent person

Comments
His enthusiasm for quantum computing, how he brings nuance into all his lessons, and how much he cares about his students. Truly one of the best professors I've had at WashU!!
He is very nice and tries to always explain things/concepts that are very confusing in the most understandable manner.
i like how you structure the class
He seems genuinely interested in what he is teaching which really rubs off on the students
Professor Cytron is genuinely passionate about the material he teaches. He is always willing to not only discuss questions outside of class but go in-depth to ensure the student's understanding of the material.
Ron is so incredibly kind and truly cares about students.
His enthusiasm in the material and genuine interest in his students!
Very passionate about quantum and clearly very intelligent on the subject. He's sgreat at explaining the foundational concepts even though he knows them like the back of his hand.
Extremely talented, engaged, and engaging professor. He made this class an absolute blast.
Great lecturer, was available and open to answering questions, and did so in a way that clarified topics rather than making them more confusing.
He was very enthusiastic about the coursework and was humorous in class
Enthusiastic, nice, prepared, and available.
Professor explains concepts in class very well
very enthusiastic when teaching very very patient and clear to explain the material and answer the questions.
He seems very passionate about both teaching and the topic
Clearly very enthusiastic about the material and also about teaching in general. Great slides. Somehow managed to explain things so well I didn't even realize I was learning
He is a coherent lecturer and helpful outside of class.
Very thorough: great at breaking down tough topics into consumable sized chunks (even with step-by-step black board examples).
Dr. Cytron is awesome!
Willing to talk and help

## How could Instructor **Ron Cytron** improve?

Comments
He was wonderful. Happy retirement.
Go a bit faster
The teacher is awesome

Comments
Some flexibility in submission times.
He could do a few more examples/practice problems on the board during lecture.
Maybe giving some reminders in class about those end of module surveys.
Going a bit slower on individual points
n/a
none
Present with a microphone
Honestly, I do not think he needs to improve as he is pretty good.
More structured slides
Answer emails and send out class cancellations in email. (Not everyone has a chance to look over all of the Piazza posts before class. Some people are working and otherwise busy.)
N/A
N/A
Posting more lectures
N/A
I honestly have no significant comments for him other than that he can sometimes provide overly extensive answers to students' questions when the response they were really looking for could be highlighted much quicker. I know there is a fine line between such a situation and the important process of reiterating information to improve retention and I therefore cannot fault him for sometimes doing too much -- more is often better when it comes to pedagogy
Honestly I can't think of anything. On the top of my head, maybe he could make exams worth less for this course as they tend to be the most stressful part of the class even (though it was a take home exam), but honestly I can't think of much else.
Please don't retire yet. We all love the professor.
the slides are great but complex to an extent. If students are relying on slides alone, can they ace the homework or exams? If not, how can the slides ensure that?
The uploaded lecture slides would be easier to navigate if they only included the final slides instead of each of the transitional ones.
More set breaks during class if the concepts are particularly dense would be helpful
When explaining difficult or novel concepts, he could slow down a bit to let us fully understand the content before diving into "what if"s that assume strong understanding of the content already.
Clarify the course slides
He probably can't, he was excellent
He's a great professor, but he needs to be slightly more energetic. The time of the lecture and its length are not good for staying awake.
Maybe use slides a bit more in the back half of the course

## Comments

Be lenient regarding late work

## What would you tell another student who asked you to describe this course?

## Comments

Very interesting course

The teacher is awesome

Great topic make sure to submit everything early.

The course appears intimidating at first, but that intimidation quickly goes away and the material becomes very interesting.

Difficult content, super interesting and engaging, professor loves the content and clearly thoroughly enjoys teaching it.

Overall interesting, but difficult to truly understand

A theoretical journey on the developments of quantum computing and its many applications, with hands-on exercises on designing circuits yourself and applying the mechanisms on paper.

take it

I learned new things about Quntume computing

If you are interested in QC as a topic, this is a great class. But first of all, you have to have an interests in this topic and Math

I would tell them to not leave problem set 2 to the end...that one took quite a maul in my grade and exhaustion.

Super interesting and not difficult if you put in som effort!

If you like math, you'll like this

Pretty basic class, nothing stands out about it that is too good or bad.

Great course to explore if you like physics and bare bones computer science. A lot of the material in the course is relatively recent research, with many unanswered questions, so it is definitely a potent research field.

It is confusing at first, but if you take the time to understand the material, it isn't that hard.

different from traditional computer science courses with a much higher math to coding ratio

This course is incredibly stimulating and provides an excellent introduction to quantum computing principles that has the power to completely change one's career path or, at the very least, act as a great exploration of math and computer science in an entirely novel way

Very challenging but also very fun. It's up to you if you want to accept the challenge.

Take it if you are curious and actually want to learn about quantum. The name is cool and all but the contents are next level

This course gives you a good foundation of QC and is really interesting--would definitely recommend!

You'll get a good great if you put in the work. It's a difficult in the sense that quantum is relatively new and there are very few online resources. But it's interesting theoritcally.

Comments
That it's hard and theoretical and kind of like learning a new language, but also really cool.
Difficult but useful specifically if you aim to get into quantum computing
Great introductory course for quantum computing
Very funny and could learn a lot. Be care that the assignments are not easy.
Really interesting because its a novel field of study
mind-boggling lol
It is more math heavy than computer science, and its helpful to come with a little bit of chemistry background.
One of the best courses at WashU
A good introduction if you are interested in the subject

## Have you observed any violations of academic integrity (e.g., cheating) in this course?

Comments
No
None observed.
no
No
No
No
nope
None
No
Not that I know of.
No
No
No
No
No
No, I have not observed any violations.
no
no
Yes. I think some students would try to use ChatGPT on assignments.
No
No
No
no
No
No
No

## Any additional comments?

Comments
None
no
nope
I learned a lot from your courses
No
N/A
No
I just wanted to mention again I am truly honored to be in Professor Cytron's last course as a tenured professor. That was a very enjoyable experience and one that I will never forget.
N/A
Sad to hear Dr. Cytron is retiring because I want him to teach the rest of my classes too



The course Canvas page or website could be easily navigated to find course materials.

