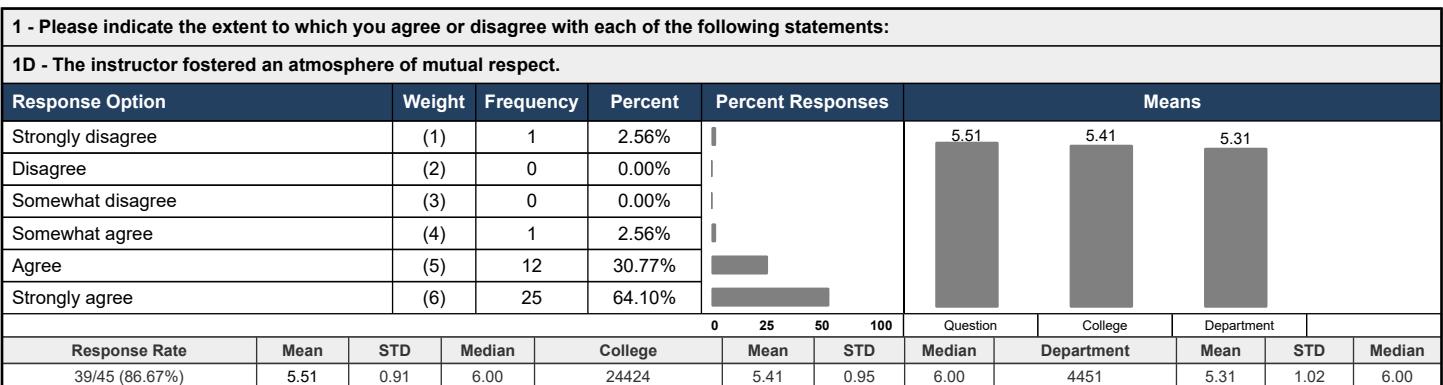
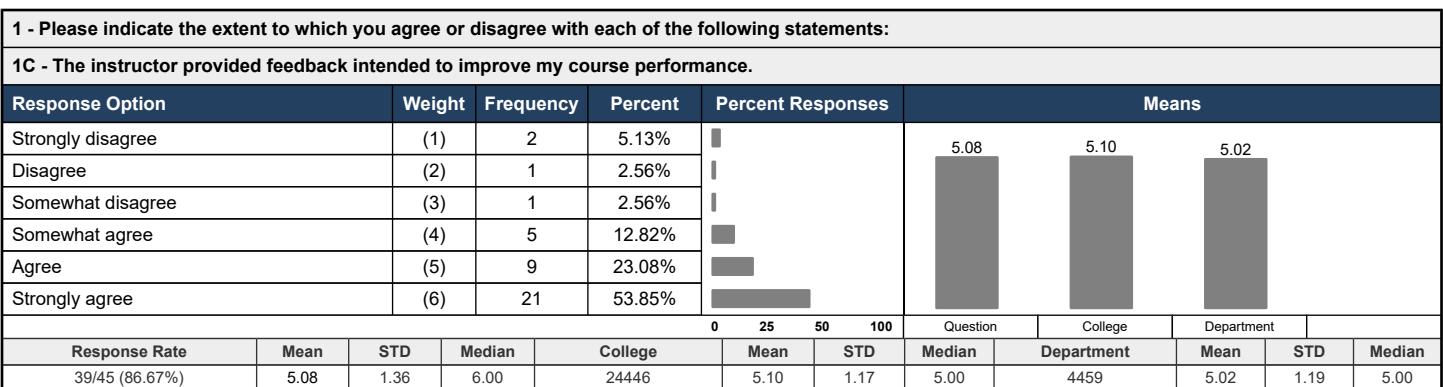
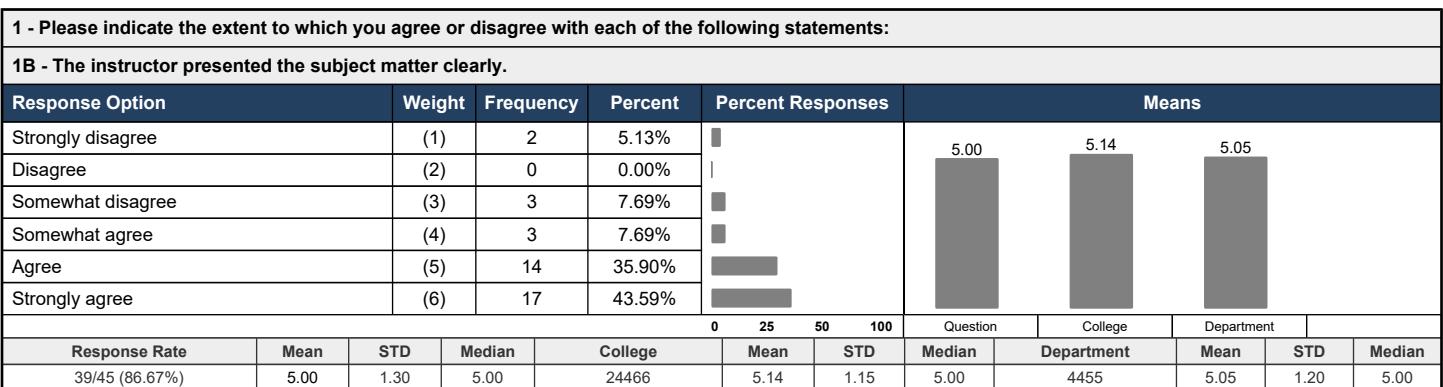
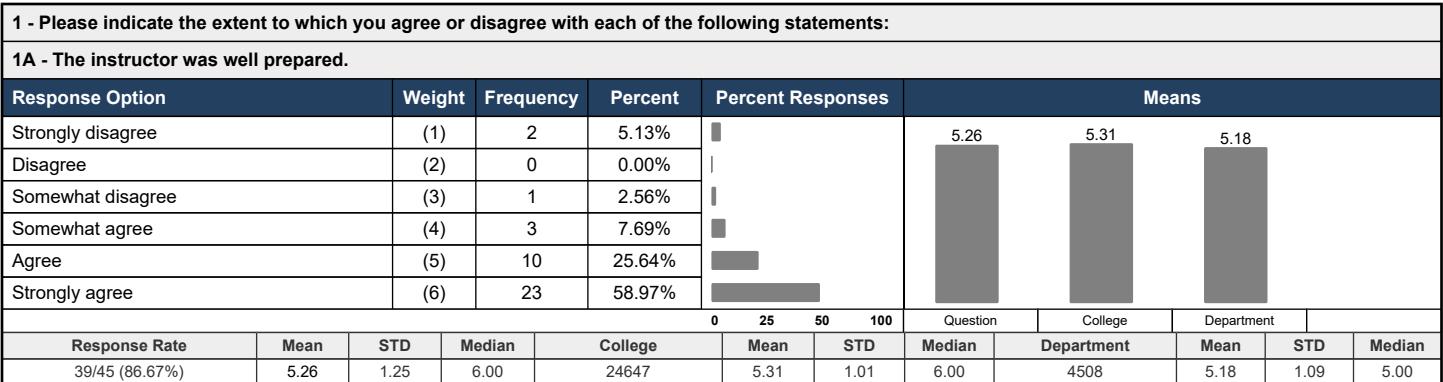


Virginia Tech

Fall 2024 VT Student Perceptions of Teaching (SPOT)

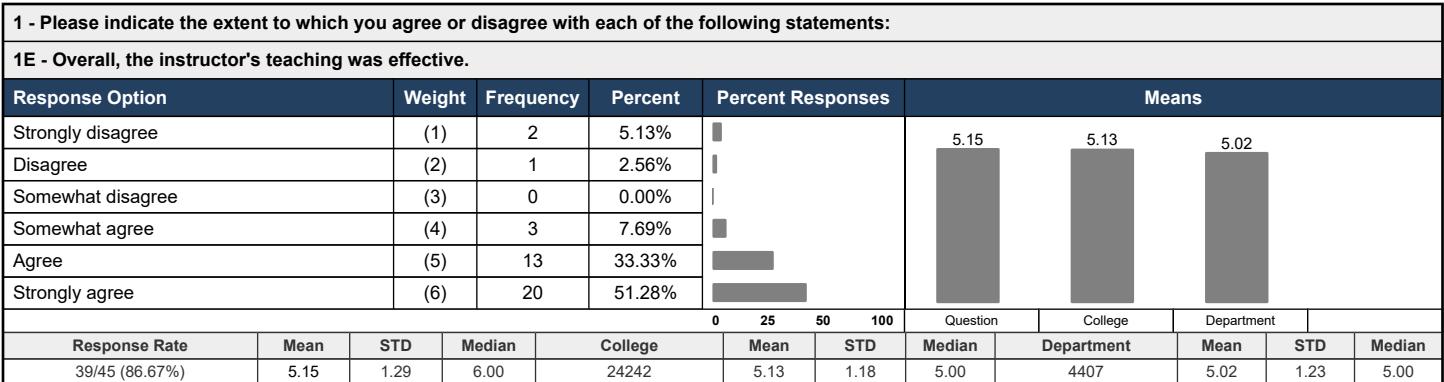
Report: CS5040_Fall_2024

Response Rate: 39/45 (86.67 %)



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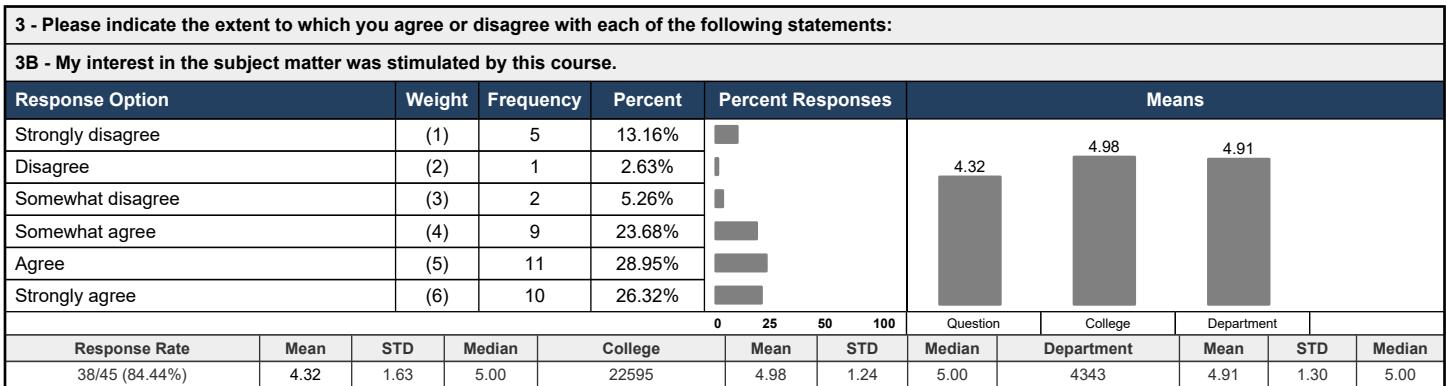
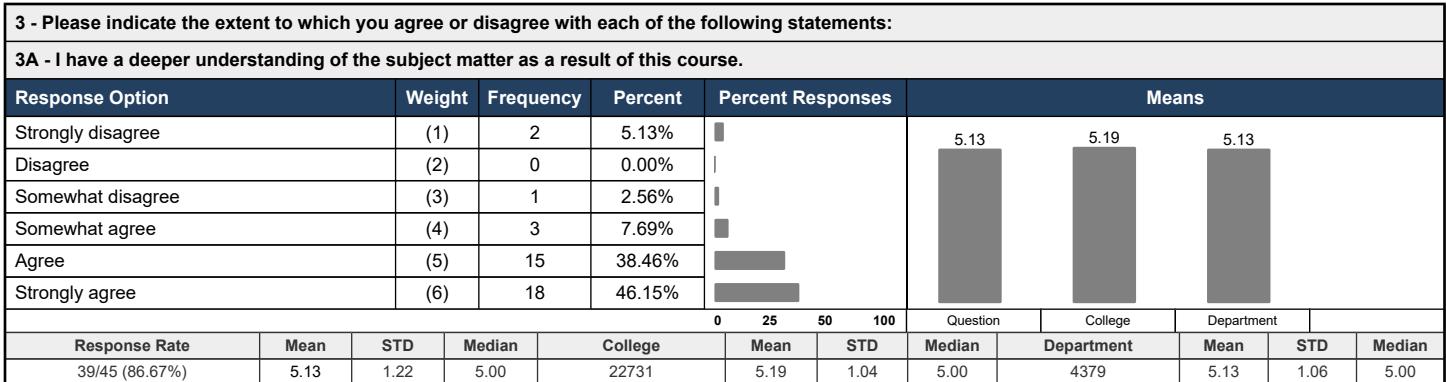


2 - 2A - What did the instructor do that most helped in your learning?

Response Rate	24/45 (53.33%)
• Answer questions during class and office hours	
• At the beginning of the semester, I was struggling with the class and considered dropping it only to retake it in the following semester. This caused a great deal of stress and was frustrating as I continued to struggle throughout the course. After addressing my concerns about my performance and the potential outcome of the class with Professor Hicks, my Academic Advisor, and some of the TA's for assistance on the projects or the readings for better understanding, I was advised of my two options (1) persevere or (2) drop the class. I was encouraged by Professor Hicks to go with (1) and go to as many office hours (both his and the TA's) to get as much help as possible and that I what I did. Thus far I have managed to bring up my grade from a highly concerning F to a high C+. Professor Hicks was mindful of the stress and pressure I was under to do well in this class and took the time to explain things in a way that I was able to grasp and understand them. Thank you!	
• clear explanation of the topic	
• Fast response and clear explanation to all questions.	
• Go through the clickable animation that demonstrates the concept.	
• He explained the concept clearly and concisely and he provided real work examples and which structures were used in those cases.	
• He was understanding of my accommodations and had helpful in class comments.	
• he would take breaks to check on the chat to see if there were any questions asked, and would always answer them all very thoroughly	
• He's responsive in his communication and clear in his feedback. He encourages asking questions and always gives his answers with patience and understanding.	
• I certainly believe the projects were very helpful in developing a problem solving mindset.	
• I would say it's the well-prepared materials and the structured schedule that helped me easily find resources and understand what I should do next.	
• Instructor helped me to relate concepts to practical use cases. Assignments provided by instructor are very helpful to improve myself to be efficient in writing quality code by following principles and design patterns.	
• Mandatory attendance was actually helpful for learning. It gave an incentive to go to class.	
• Professor Hicks did a great job making the lectures engaging. He often provided examples/metaphors for topics outside CS to relate to whatever we were learning at the time, and I found those examples to really help me understand and remember that material. Professor Hicks provides a welcoming environment for his students, and I was never afraid to ask questions. I really enjoyed his class.	
• Professor Hicks was very good at student interaction during lectures (and via piazza and email). He gave good answers or hints as needed, and presented the content of the class clearly. His exams and projects are designed to show how well you can apply the material, rather than rote memorization.	
• Provided an interactive and educational environment which allowed for everyone to feel comfortable to ask questions (and responding to the questions as soon as possible was very helpful)	
• Quick response times and office hours helped me identify what I didn't understand in a way I can understand better.	
• self-learning projects! well done!	
• The instructor is very patient with in-class question. And good at giving big picture about the projects and share useful project management experience	
• The instructor went through the design document of the project, which helped me to understand more about the project	
• The office hours were crucial and were very helpful in debugging the project and determining where in your project code should be worked on	
• Unfortunately, I did not feel like this course or this professor ever took much of an interest in fostering a productive learning environment outside of just reading through the prepared slides for each lecture.	
• Very helpful during office hours	
• Was prompt and clear.	

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Response Rate: 39/45 (86.67 %)

4 - 4A - What could you have done to be a better learner?

Response Rate	23/45 (51.11%)
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- apply the concepts with different cases
- attend more office hours to discuss the project
- Better familiarize myself with the terminology associated with this course. Prior to this course, I have only had 12 weeks of coding experience with Java from the VT Java Bridge Program.
- Go to office hours more, ask in class questions
- I certainly could've communicated more and used more of the resources available to me in my first project's time period, but that's about it.
- I could have completed the openDSA assignment much earlier
- I could have done a better job at consistently keeping up with the Open DSA
- I could have kept up with the material better, completing the OpenDSA chapters before class as is recommended would have been helpful.
- I could have put in more hours for the coursework
- I could've kept up more with the OpenDSA's
- I feel I went above and beyond to foster an environment in which I would be able to learn this material with no success. I will elaborate further below. My answer will be split up between this box and the next due to character limits. 4B: I have so many comments about this course I have had to spend quite a bit of time just distilling them down into something that I think has a chance to be read by whoever goes over these surveys. They are organized in 4 main categories: Projects, Piazza, TA/Office Hours, and Instructors. First, the interactions on Piazza were infuriating and I eventually gave up even trying to get support from there. When instructors didn't just flat out refuse to answer questions, they would answer questions with conflicting information. Rather than understanding that piazza is an asynchronous form of communication and therefore, much slower than a normal conversation, and answering questions directly, instead would constantly reply with short, unclear answers or would tell you to "read the spec" or "consult an OpenDSA section" as if we hadn't done that dozens of times. If "reading the spec" would solve my problem, I wouldn't need to go back and forth on Piazza trying to squeeze a drop of an answer out of the staff for hours. Second, The TAs/Office Hours were completely useless. To be clear, I don't fully fault the TAs for this as I'm sure they are just students too and aren't paid to know all of the answers the way the instructors are. However, I went to office hours for help on projects multiple times and I never once received actual help on my problems. After waiting for up to 2-3 hours in a queue to see someone, this is very frustrating. They either did not understand the project they were meant to help us on or didn't understand the solution code they had been given. At one point I had to explain to a TA how the code worked (not MY code, mind you. The STARTER code) before I could even ask my question, by which point I had completely lost faith in their ability to help me. After spending most of the time walking through my code with them, the overwhelming response was "All of this looks good I don't know why it's not working". And then they would say they have to move on to help someone else. Finally, there were multiple instances of TAs just not showing up to their listed hours and there were multiple times where a TA said they were going to put me into a breakout room, help someone else, and then come back to help me and they just never returned.
- I think I did pretty well.
- I'm the best learner
- It will be better if I have some background with Java to learn this course.
- Maybe I could have spent more time delving deeper into data structures and algorithms, as they are essential for our future careers.
- Put more time into the projects
- Spent more time on the projects earlier in the semester.
- Spent more time studying. Unfortunately my other class took precedence.
- Take advantage of the TA office hours as soon as the project is issued. Take time to thoroughly review the project background and requirements before starting the actual work
- Taken an in-person section if possible. I have a lot of trouble focusing during online lectures
- To be able to practice the concepts more, it's challenging to do that when projects take up so much time to complete that that often gets chosen over the other.
- tried to follow more closely with the class timeline with openDSA
- Try to understand the open DSA questions better rather than continuously answering the questions until I get them right

Report: CS5040_Fall_2024

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5 - 5A - Please add any additional comments regarding the course and/or instructor here:

Response Rate	22/45 (48.89%)
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• 1. The instructor wasted too much time answering questions about projects, which could have been done during office hours, or let TAs answer these questions. As a result, some topics in this course were vaguely explained, and immediately moved on to the next topic because of lacking enough time to do so. 2. Project specs were not documented enough such that students will have to browse through questions on the piazza to know why the output did not match the reference tests. 3. I think I am wasting too much time dealing with strange output formats instead of focusing on how to implement the required data structures and their related algorithms. This is a data structure and algorithm course, not a file processing course. 4. The school's advisor said that this course would definitely help us deal with companies' technical interviews, but it turned out that this course did not help at all. I did not gain more/deeper knowledge about common data structures, nor did I feel confident in solving companies' technical interview problems after taking this course.

• Genuinely wants to see students succeed

• Great instructor and I will take his class again if I had to.

• Great professor. Should be more TAs specifically for graduate course in my opinion.

• He teaches well

• He was chill, the kinda guy you could smoke with.

• I appreciate the well-prepared materials and structured schedule provided by the professor. I also understand how challenging it is to teach such a wide range of concepts within a single semester. However, I sometimes found it difficult to fully grasp certain concepts during the limited class time. Additionally, the project didn't seem to align well with the class schedule, which made the beginning of the course particularly challenging for me. I was also a bit confused about the course requirements. While it is listed as a required class, it seems to assume prior knowledge of data structures and algorithms. Without that background, the course can feel more difficult than expected.

• I believe the details and information provided for the projects were not sufficient. Additionally, there was no physical assistance or teacher support available for other campuses, such as Falls Church. I also think the deadline for Project 3 should have been longer than two weeks.

• I love you

• I really enjoyed the course.

• I sincerely appreciate you answer questions and explain the projects at the beginning of the class, but sometimes it takes too long time. Additionally, some milestone, especially for the first project, is due before we learned the corresponding contents in the lecture. This makes the lecture a little bit less attractive and useful since we need self-study through the OpenDSA to catch up the milestone. The question answering for individual at the beginning of the class can be shorter. In addition, the office hour room is really a problem for me, since 2/3 of the time I don't have the access to that room as the PhD student who's office is in DDS instead of Torgerson. There is some trouble to contact and fix this problem with the CS department.

• I think the first project was too hard and the last project was too easy. First project's difficulty was exacerbated by having to (re)learn Java, JUnit testing, and mutation testing in addition to doing the project itself. On the other hand, half of the last project was already done in Project 1. It would be better if the difficulty for the first and last projects were reversed. I think the time commitment for the course is closer to 20-24 hours per week.

• My only note is that sometime the instructor would jump quickly to look back at previous slides which could be somewhat jarring

• OpenDSA textbook can use some improvement. I'm used to courses that provide online textbooks with the capability of making highlights and writing notes but OpenDSA has no such capability. Some of its glitches needs to be evaluated too as there were some complaints about it on Piazza from other students. The projects were nice in providing the intended value for our professional development as programmers but it is very time-consuming, time-consuming to the point that my other classes get breadcrumbs of efforts left out of me which isn't fair to them. Also, the WebCAT reference tests for Project 4 was better in that it had descriptions of what the test is testing for but some tests like both integrated Capstone 1 and 2 tests were not very descriptive, so with this I'd suggest ensuring all reference tests have a clear description of what is being tested so that the student can have some kind of idea of how to go about it. Ex. "Failed test with expanding hash table with tombstones" is more descriptive than "Failed on integrated capstone test 1." If it helps, put yourself in the shoes of a student (as you once were one) and see if you'll figure out how to approach it by how it was phrased. This can apply to other aspects of the course too (directions on projects, etc.). Definitely found the TA's helpful. It was a good idea to combine TA resources of both grad and undergrad sections. The TA schedule on Excel was helpful to know the availabilities of TA's at certain times. There were occasions though where a TA that was scheduled for a certain time block wasn't there, so it becomes imperative that TA's are responsible for showing up at the time shift they signed up for or was assigned to.

• Thank you for encouraging me to tough it out and not give up.

• Thank you for taking a difficult class and making it fun, interesting, and (mostly) easy to understand. I hope to take another class with you in the future!

• The assignments felt like they weren't proofread. Several errors each time and also sometimes was confusing to read. Especially the first two projects. Also, the last project was super easy and was said to be hard. The third assignment was fairly difficult but was said to be easy. The first assignment was said to be easy, but I thought it was one of the harder ones.

• The first two projects were very difficult due to their fast pace. It could be improved by taking some more time for a refresher on java.

• The use of web-cat and the way the first project was structured was all very new and foreign to me starting out, which contributed to me failing it with a 39%. While it was partly my responsibility of course, I didn't ask the questions I should've asked because I didn't truly know what I didn't know. One suggestion would be to hold some kind of optional, out-of-class session maybe after submitting project 0, with TA's at the start of the semester, to explain how web-cat works and the general approach to these projects that we should take for those unfamiliar with everything (e.g. formating expectations, what the command processor vs controller does, etc.). I never used it before, nor Eclipse in any programming courses, so that's why I'd suggest it, at least for the grad program. One more idea for the course is to respond to questions about instructor tests failing with more hints about what scenarios our code is failing in, and what test cases we could try to isolate the problem. I've seen that happen a fair amount already, but with web-cat, multiple things could be wrong for one instructor test, and that level of detail is important to consider as well.

• Third, the project specs were awful. They were poorly formatted and the requirements were often unclear. If I offer a good faith reason for this, I would say it's because it can be useful to learn to take a narrativized document and extract concrete requirements from it, but this only works if there is adequate support from the staff to clear up confusion, which there wasn't and will be expounded on later as well as in my section on Piazza. Project 3 was especially egregious. It was managed so poorly, that the instructors had to come up with a mechanism to give points back to students after the due date since, I'm assuming, so few people were actually able to complete the project. To be clear, while I'm appreciative of this from a grades standpoint, I wish they would have just been more willing to help debug, provide better instructions in the beginning so that they didn't have to cover for our inability to solve the problem at the end. Finally, the instructors. After writing a piazza post complaining about much of the above, an instructor who was not mine personally emailed me offering me her help, which I was grateful for. However, Her help did not solve my problem. She said if I needed any further assistance I could email her back. When I did so, she responded that she was "too busy with her own students" and that I should "utilize my TAs", which as I have already explained, were no help at all. Also, despite multiple attempts to get help from my actual instructor, I was told "If what you're looking for is debugging, I won't be much help... I won't go through your code line by line." This was after explaining in detail the scope of the problem and how my code functioned. I demonstrated that I fully understood the problem, as well as my code, but couldn't figure out the error I was having. Debugging assistance was exactly what I needed on a specific part of my code (not "line by line") and his refusal to help in this was the final straw. I checked out of the class after this. I have been a professional developer for almost 5 years and I couldn't imagine having a junior engineer come to me and ask for my help and my response being "I won't help you debug your code, good luck". I see it as my responsibility as the more experienced person to help my juniors overcome challenges they can't overcome on their own, ESPECIALLY when those junior engineer's show a deep interest in and effort to solve the problem. To be refused help so blatantly in each of the ways listed above despite making such a strong effort was infuriating and completely killed what was prior to this class a genuine desire to learn and improve at this topic. Just a final comment. Please don't mistake my comments as complaints that the material was too difficult. I enjoy learning how to solve difficult problems. I just wish there was actual, genuine support and assistance to help us solve these problems rather than being met with obstruction, lack of interest, and the oft repeated excuse throughout the course "We don't want to trivialize the problem". It's not trivial if the majority of the class is struggling to overcome it without assistance.

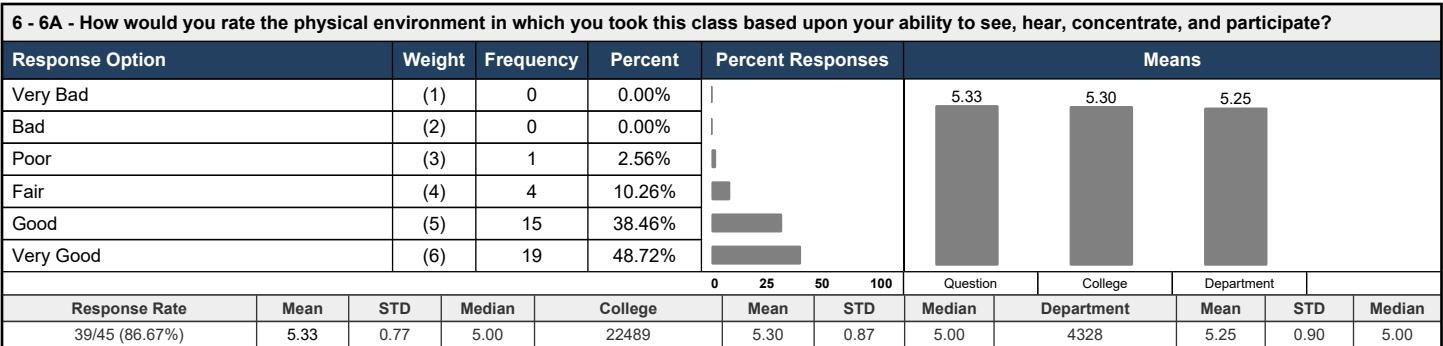
• Very good instructor and very helpful

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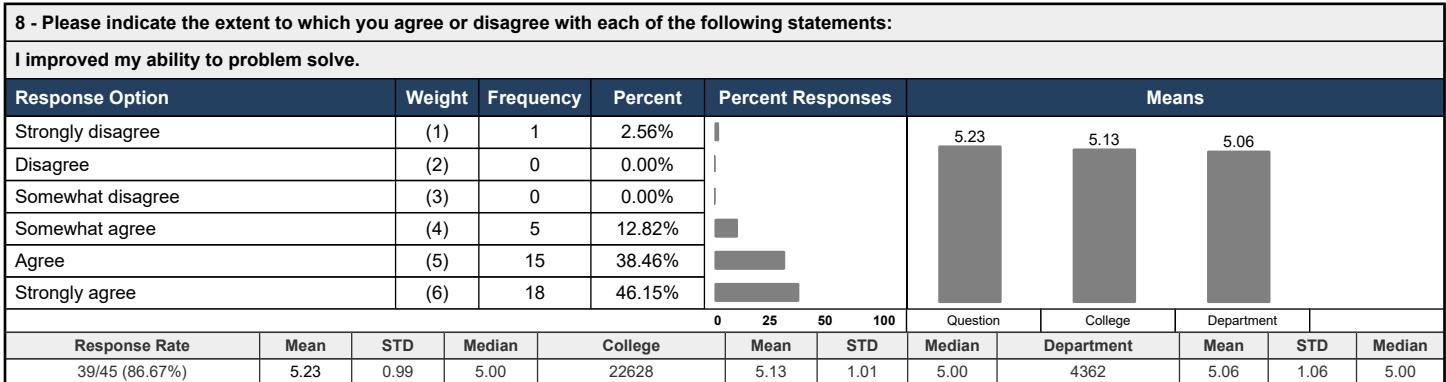
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7 - 7A - Please add any comments about the physical environment here:

Response Rate	16/45 (35.56%)
<ul style="list-style-type: none"> - I had no issues about this My class was virtual so it was on me to find a quiet and distraction free. No issues with audio or video. N/A N/A N/A N/A - the class is Online n/a, course was online. Though the virtual features of the course (zoom, myDigitalHand) were good. N/A, online. NA No complaints. Was good. None There was no physical environment. This class was on Zoom. This is a virtual Class. Wish I could've taken lectures in person 	

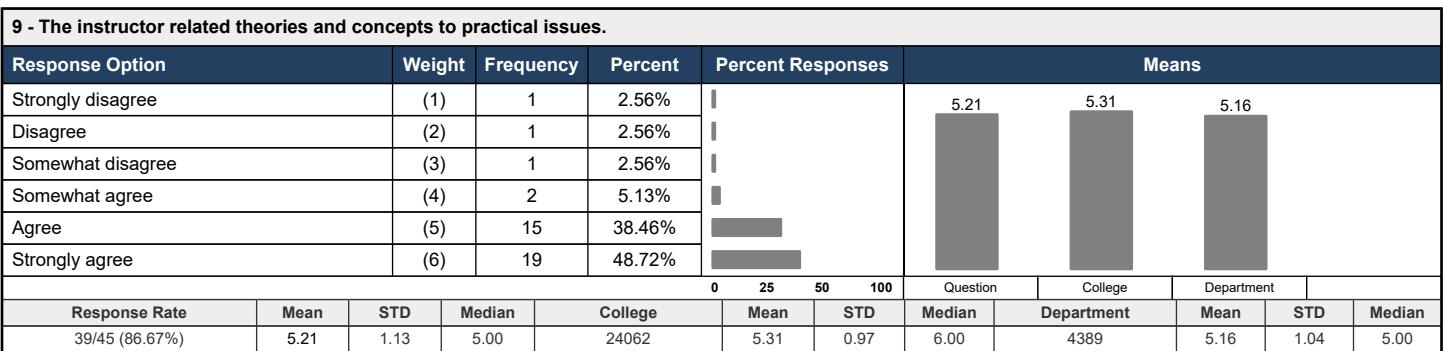
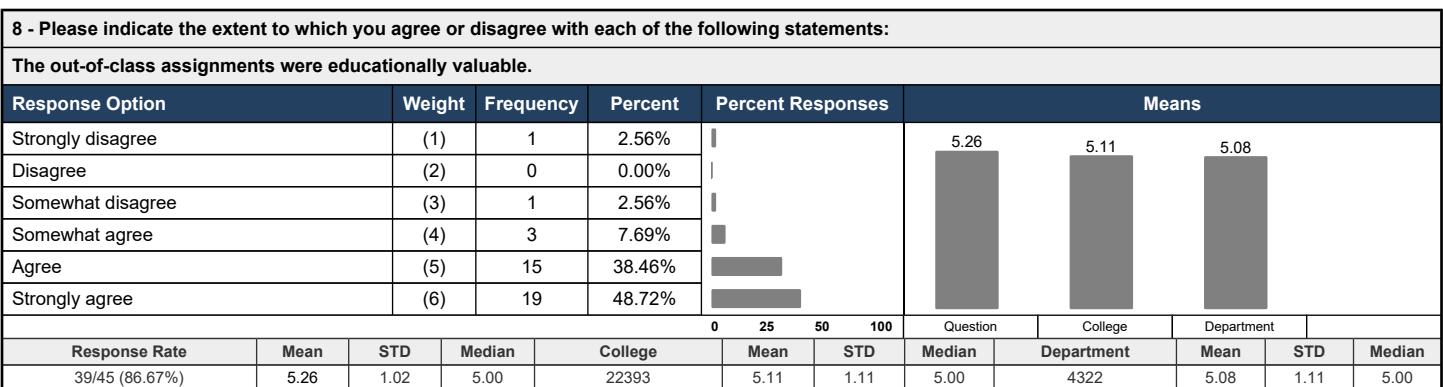
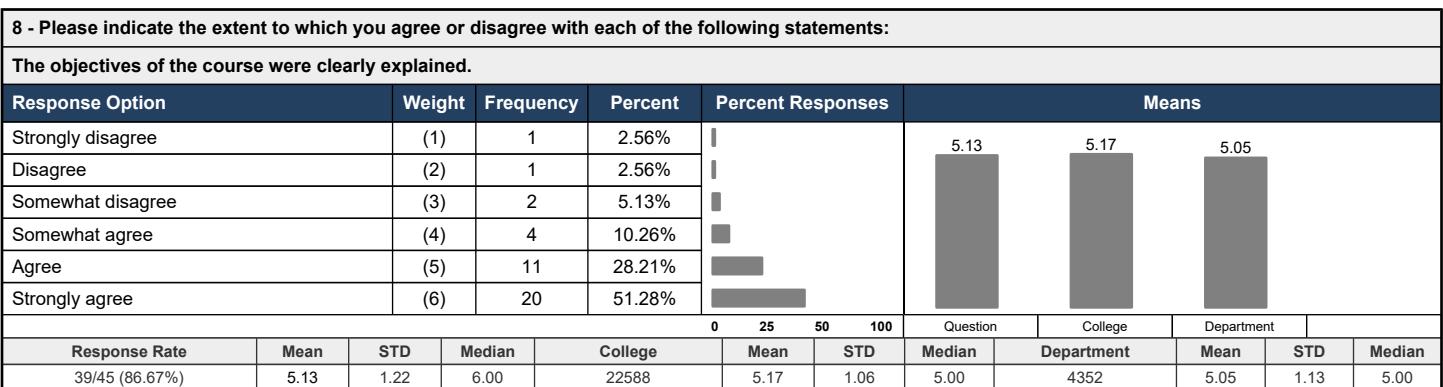
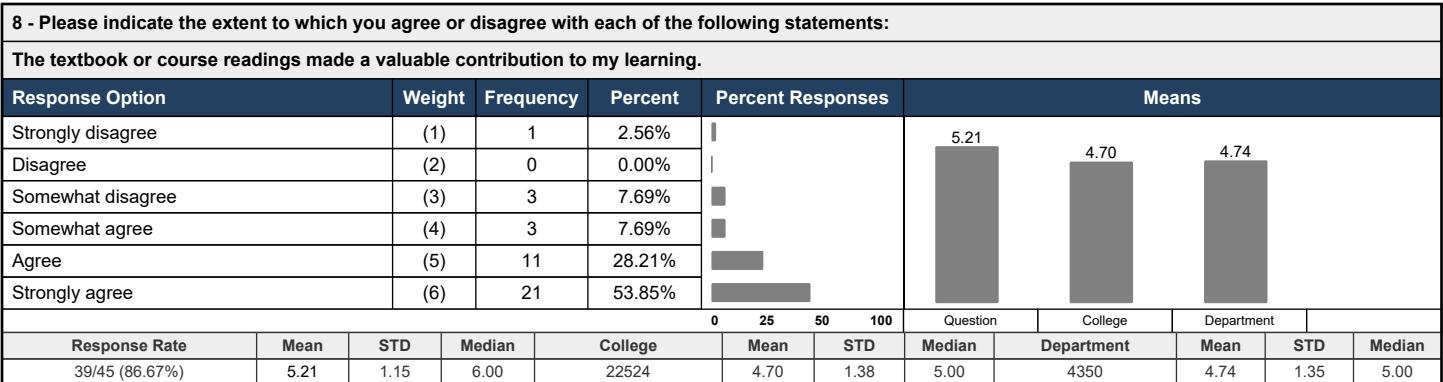


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