



Course Evaluations Spring 2025

Alvarado, Ryan

MATH-275-01-2425S A Second Course in Linear Algebra

Report grouped by students without names



Report prepared by **Explorance Support**
Created **Thursday, May 22, 2025**



Course Audience: 23
Responses Received: 10
Response Ratio: 43.48%

Individual Student Responses

Please note: If the customizable 7th question is not displayed, it indicates that the instructor has not provided a question for this section.

Course Name: MATH-275-01-2425S A Second Course in Linear Algebra
Instructor Name: Ryan Alvarado

01. How often did you:

Prepare for class

- Sometimes

Attend class

- Always

Participate in class

- Rarely

Complete assignments

- Often

Meet with professor outside of class

- Often

02. Using specific examples, please briefly describe what you did that you feel was particularly effective for improving your learning in this course?

Office hours

03. In what ways did this course and instructor [Ryan Alvarado](#) stimulate or shape your intellectual interests, thinking, and/or imagination?

Always willing to answer any questions and be friendly.

04. Please describe the most significant skills and/or knowledge that you gained or further developed during this course.

Time management

- 05. Considering the overall design of the course, how did the pace, presentation of information, clarity of expectations, assignments, activities, and/or discussions in the course impact your learning?**

The assignment were lengthy because it was not an easy class. Overall, this class felt normal. It was work just as any other class is.

- 06. Please describe the nature of your interactions with the instructor [Ryan Alvarado](#) in this course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside class, and the feedback you received on your course work.**

Great. Very available, very helpful.

- 08. Type your comments below for [Ryan Alvarado](#).**

Keep being you! Worked great for both semesters I've had with you.

Individual Student Responses (continued)

Please note: If the customizable 7th question is not displayed, it indicates that the instructor has not provided a question for this section.

Course Name: MATH-275-01-2425S A Second Course in Linear Algebra
Instructor Name: Ryan Alvarado

01. How often did you:

Prepare for class

- Always

Attend class

- Always

Participate in class

- Sometimes

Complete assignments

- Always

Meet with professor outside of class

- Always

02. Using specific examples, please briefly describe what you did that you feel was particularly effective for improving your learning in this course?

It was particularly effective to start the homework and projects early in this course. Some of the homework assignments are very lengthy and required me to attend multiple office hour sessions to complete.

03. In what ways did this course and instructor [Ryan Alvarado](#) stimulate or shape your intellectual interests, thinking, and/or imagination?

Professor Alvarado included projects in this course, which encouraged us to explore interesting topics that were briefly introduced in class. These projects had guiding questions, but he also gave us the freedom to explore whatever properties/questions we were interested in.

04. Please describe the most significant skills and/or knowledge that you gained or further developed during this course.

I learned multiple decompositions for both square and non-square matrices. I basically learned what happens when you have a matrix that is not "pretty" (i.e. has complex eigenvalues, is not diagonalizable, etc.)

05. Considering the overall design of the course, how did the pace, presentation of information, clarity of expectations, assignments, activities, and/or discussions in the course impact your learning?

The assignments were nicely spread out, and I think the expectations were very clear on assignments and assessments. The homework definitely got longer/more rigorous as the semester went on, but I'm not sure if that was intended.

06. Please describe the nature of your interactions with the instructor [Ryan Alvarado](#) in this course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside class, and the feedback you received on your course work.

Professor Alvarado loves students who try to engage with the material. He is more than willing to answer questions in class, during office hours, or during one-on-one meetings. He designs his classes to reward those who put in the effort. He puts comments on his exams so that we are able to fix our proof techniques for coming homework and exams.

Individual Student Responses (continued)

Please note: If the customizable 7th question is not displayed, it indicates that the instructor has not provided a question for this section.

Course Name: MATH-275-01-2425S A Second Course in Linear Algebra
Instructor Name: Ryan Alvarado

01. How often did you:

Prepare for class

- Always

Attend class

- Always

Participate in class

- Always

Complete assignments

- Always

Meet with professor outside of class

- Sometimes

02. Using specific examples, please briefly describe what you did that you feel was particularly effective for improving your learning in this course?

starting work early!!

03. In what ways did this course and instructor [Ryan Alvarado](#) stimulate or shape your intellectual interests, thinking, and/or imagination?

thank god you gave this guy tenure he's awesome

04. Please describe the most significant skills and/or knowledge that you gained or further developed during this course.

expanding mathematical knowledge beyond the scope of the course through projects

05. Considering the overall design of the course, how did the pace, presentation of information, clarity of expectations, assignments, activities, and/or

discussions in the course impact your learning?

the projects were honestly kind of heinous but only because i so didn't want to do them by the end of the class. they were super interesting tho i just time managed poorly (thesis student)

- 06. Please describe the nature of your interactions with the instructor [Ryan Alvarado](#) in this course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside class, and the feedback you received on your course work.**

prof alvarado is awesome and answers everyone's questions and asked ME a lot of questions about what it means to get a math degree and teach math which i thought was incredibly thoughtfol

- 08. Type your comments below for [Ryan Alvarado](#).**

yay math

Individual Student Responses (continued)

Please note: If the customizable 7th question is not displayed, it indicates that the instructor has not provided a question for this section.

Course Name: MATH-275-01-2425S A Second Course in Linear Algebra
Instructor Name: Ryan Alvarado

01. How often did you:

Prepare for class

- Always

Attend class

- Always

Participate in class

- Always

Complete assignments

- Always

Meet with professor outside of class

- Always

02. Using specific examples, please briefly describe what you did that you feel was particularly effective for improving your learning in this course?

I thought that the posted class notes was unique (I've never had a STEM teacher do this before). I really liked this as I was able to go back and check if I had copied anything down wrong during class. I also really like that he started every class with reminders such as when the homework was due, when the next test was, when his office hours were etc. I also really liked how he started every class with a recap of what we were just doing. Also his AI images for pi day and "the ultimate hump day" were a nice fun touch.

03. In what ways did this course and instructor [Ryan Alvarado](#) stimulate or shape your intellectual interests, thinking, and/or imagination?

I think the projects were meant to stimulate or shape our intellectual interests but the amount of work in this class is A LOT, so I wasn't able to dive deep into the projects like I would've liked to. I simply didn't have time.

04. Please describe the most significant skills and/or knowledge that you gained

or further developed during this course.

Most significant skill was seeing how matrices relate to maps. I am a transfer student so I took linear algebra at a previous school and this connection was barely emphasized. Alvarado does a really good job at emphasizing their connection.

05. Considering the overall design of the course, how did the pace, presentation of information, clarity of expectations, assignments, activities, and/or discussions in the course impact your learning?

Pace of notes in class WAY too fast. Nearly every class I didn't complete the notes and had to go back to the online notes later. Also the pace is so fast I couldn't understand what was happening in the moment which didn't allow me to ask appropriate questions; I noticed in my other math classes I was able to ask more meaningful questions during class as I had time to process what was happening. Presentation okay – I think more examples instead of proofs would've been useful since linear algebra is more of an applicable math than a pure math in my opinion. Homework pace was perfect – Alvarado always took into consideration tests and vacations and was respectful of the students schedule. Expectations clear-ish, they are clear right before it is due but Alvarado will often go back on his word. He said that the 3rd exam wouldn't be cumulative, then in the last week of class he said that there would be a question from any point in the course. He also told me during office hours that the last 2 classes of material wouldn't be on the exam, then in class he said it would be on the exam.

06. Please describe the nature of your interactions with the instructor [Ryan Alvarado](#) in this course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside class, and the feedback you received on your course work.

As a person Alvarado is super personable and fun. I love his office hours and how he encourages questions. However they are always super crowded and it's sometimes difficult to get a question in. The homework is returned way after we turned it in, often even after we've taken a test on the material. It would be better if we could get feedback before the exam and if not at least post the solutions!

08. Type your comments below for [Ryan Alvarado](#).

Good teacher, but course poorly executed in my opinion

Individual Student Responses (continued)

Please note: If the customizable 7th question is not displayed, it indicates that the instructor has not provided a question for this section.

Course Name: MATH-275-01-2425S A Second Course in Linear Algebra
Instructor Name: Ryan Alvarado

01. How often did you:

Prepare for class

- Often

Attend class

- Always

Participate in class

- Often

Complete assignments

- Always

Meet with professor outside of class

- Often

02. Using specific examples, please briefly describe what you did that you feel was particularly effective for improving your learning in this course?

Office hours

03. In what ways did this course and instructor [Ryan Alvarado](#) stimulate or shape your intellectual interests, thinking, and/or imagination?

I loved having Professor Alvarado as my professor. He makes the material very engaging, he is very open to questions and offering help, and always brings a fun spirit to mathematics.

04. Please describe the most significant skills and/or knowledge that you gained or further developed during this course.

Mathematics knowledge

- 05. Considering the overall design of the course, how did the pace, presentation of information, clarity of expectations, assignments, activities, and/or discussions in the course impact your learning?**

The course was very challenging for me and it was hard to keep up at times. Nevertheless, Professor Alvarado was always available for help.

- 06. Please describe the nature of your interactions with the instructor [Ryan Alvarado](#) in this course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside class, and the feedback you received on your course work.**

He is one of the most engaging professors, both inside and outside of the classroom, that I have had at Amherst College. Always available, quick with replies, and always with a positive "you will get this" spirit.

- 08. Type your comments below for [Ryan Alvarado](#).**

I loved having Alvarado as my professor. I would take a math course only because he is teaching it, regardless of my interest

Individual Student Responses (continued)

Please note: If the customizable 7th question is not displayed, it indicates that the instructor has not provided a question for this section.

Course Name: MATH-275-01-2425S A Second Course in Linear Algebra
Instructor Name: Ryan Alvarado

01. How often did you:

Prepare for class

- Always

Attend class

- Often

Participate in class

- Often

Complete assignments

- Always

Meet with professor outside of class

- Often

02. Using specific examples, please briefly describe what you did that you feel was particularly effective for improving your learning in this course?

By attending class and seeing the daily announcements, I was able to stay up-to-date in changes in the course schedule and assignment deadlines (although there weren't too many changes from those initially released). As a result, I was able to create a regular schedule that allowed me to have time to review the class notes, start assignments early, and complete every assignment thoroughly to gain a good understanding of all the course material.

03. In what ways did this course and instructor [Ryan Alvarado](#) stimulate or shape your intellectual interests, thinking, and/or imagination?

Prof. Alvarado created an amazing class environment. His in-class energy is like no other and it meant that no matter how tired any of us were coming into class, we were immediately energized and excited to learn more math.

04. Please describe the most significant skills and/or knowledge that you gained

or further developed during this course.

Through this course, I was able to pick up where we left off in Linear Algebra I and learn the even more interesting topics of Linear Algebra II. From the 4 types of decompositions we learned, to more proof writing techniques and applications, I greatly enjoyed learning everything in this course.

05. Considering the overall design of the course, how did the pace, presentation of information, clarity of expectations, assignments, activities, and/or discussions in the course impact your learning?

I appreciated how the course was divided into clear units as it allowed me to identify the different areas we were covering in the course and which ones I needed to work more on over the course of the semester. I found this allowed me to regularly work on the areas I was struggling on and overall gain a thorough understanding of all the course material.

06. Please describe the nature of your interactions with the instructor [Ryan Alvarado](#) in this course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside class, and the feedback you received on your course work.

Prof. Alvarado was an amazing lecturer and very accessible outside of class! I greatly enjoyed attending class as he strongly encouraged asking questions and paused regularly to make sure everyone was following along (that is, as best we could given how fast the lectures were—I definitely appreciate the course notes being updated live on the Moodle page for reference). Then, outside of class, he was very accessible through office hours thrice a week and I enjoyed attending them as they allowed me to ask any questions I had, whether it be about material covered that week, or material covered weeks ago (or even sometimes material from Linear Algebra I when I had forgotten something).

08. Type your comments below for [Ryan Alvarado](#).

Prof. Alvarado was an absolutely amazing professor. His course definitely is not easy and he makes us work for our grade; however, he also provides so much support so that if you do put in the work, you will be rewarded with an amazingly thorough understanding of the course material and enjoyment of the course overall.

Individual Student Responses (continued)

Please note: If the customizable 7th question is not displayed, it indicates that the instructor has not provided a question for this section.

Course Name: MATH-275-01-2425S A Second Course in Linear Algebra
Instructor Name: Ryan Alvarado

01. How often did you:

Prepare for class

- Sometimes

Attend class

- Always

Participate in class

- Sometimes

Complete assignments

- Often

Meet with professor outside of class

- Rarely

02. Using specific examples, please briefly describe what you did that you feel was particularly effective for improving your learning in this course?

Doing the homework with another student.

03. In what ways did this course and instructor [Ryan Alvarado](#) stimulate or shape your intellectual interests, thinking, and/or imagination?

There were some somewhat fundamental ideas about math (mostly regarding imaginary numbers) that I realized I had a naive outlook on. Ryan definitely stimulated my thinking a lot, probably more than I could handle.

04. Please describe the most significant skills and/or knowledge that you gained or further developed during this course.

My understanding of Linear I was well-strengthened.

05. Considering the overall design of the course, how did the pace, presentation of information, clarity of expectations, assignments, activities, and/or discussions in the course impact your learning?

The pace was very fast (partially because the first week was spent on review), the assignments were very tough, the midterms were pretty tough, and the projects were the cherry on top to make the course feel like too much was going on, especially for a 200 level course (it's probably the hardest course I've taken).

However, the presentation was very well–done, and the clarity was pretty good (when I had a good grip on the concepts leading up to something).

06. Please describe the nature of your interactions with the instructor [Ryan Alvarado](#) in this course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside class, and the feedback you received on your course work.

I only went to TA hours (and not office hours) and so basically all of my interactions with Ryan were during class. Apart from the pace feeling too fast, he was actually great at introducing a concept with questions that somewhat naturally lead from previous concept. He also asked if anybody had questions frequently and would accept and respond to questions very well.

I'd say the feedback is where Ryan mostly fell through, as our midterms took a long time to get results on, and regular assignments had an above–average time until returned (in my experience).

08. Type your comments below for [Ryan Alvarado](#).

I think the course had too much going on. Specifically, as someone struggling, I felt like the projects were almost unattainable in terms of diverting time away from other assignments (especially for a 200 level course).

However, I very much appreciate the way you "flow" between concepts and the way that you are always willing to answer questions.

Individual Student Responses (continued)

Please note: If the customizable 7th question is not displayed, it indicates that the instructor has not provided a question for this section.

Course Name: MATH-275-01-2425S A Second Course in Linear Algebra
Instructor Name: Ryan Alvarado

01. How often did you:

Prepare for class

- Sometimes

Attend class

- Always

Participate in class

- Often

Complete assignments

- Always

Meet with professor outside of class

- Always

02. Using specific examples, please briefly describe what you did that you feel was particularly effective for improving your learning in this course?

I always started the weekly assignment on the day Prof. Alvarado posted it. There are quite a lot of problems for each assignment, so starting early gives me more time to think about them and more opportunities to ask Prof. Alvarado about them during office hours. Prof. Alvarado also goes quite fast in this class, so sometimes, I would not be able to catch up with all his notes in class. Hence, I often would stop writing the notes and just focus on listening to the lecture and making sure I understand every step he is illustrating, and ask questions when necessary.

03. In what ways did this course and instructor [Ryan Alvarado](#) stimulate or shape your intellectual interests, thinking, and/or imagination?

I love the content covered in this course. Prof. Alvarado puts in a lot of time designing and teaching this course, in which he strives to present it in a "narrative" way. I can see the connections between the Singular Value Decomposition we're learning now and the eigenvalue decompositions and the Jordan forms that we learned months ago. Although I covered some materials before, Prof. Alvarado's detailed explanations and narrative

definitely helped me understand the bigger picture we are looking at. I'm now very interested in preparing myself for taking Functional Analysis, which brings these conversations up to the infinite dimension.

04. Please describe the most significant skills and/or knowledge that you gained or further developed during this course.

Since I was placed out of Linear Algebra, I am unsure if I would be competent enough to take upper-level courses that require linear algebra knowledge. Taking Linear Algebra II allowed me to review the most important concepts in linear algebra while building on top of that. I learned a lot about all kinds of decompositions, inner product spaces, normed spaces, etc.

05. Considering the overall design of the course, how did the pace, presentation of information, clarity of expectations, assignments, activities, and/or discussions in the course impact your learning?

Prof. Alvarado is a "fast" lecturer compared to most of the professors here at Amherst. However, each of his lectures is clearly planned with a narrative that helps us understand the goal of investigating the topic and proving the theorems/lemmas. Hence, it does not feel overwhelming but rather fulfilling. Besides weekly assignments and exams, we also have to complete five projects that build upon the topics we covered in class and help us to explore some branching ideas. I really enjoyed this opportunity to go beyond what we are learning and explore the topics that I am personally drawn to in this class.

06. Please describe the nature of your interactions with the instructor [Ryan Alvarado](#) in this course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside class, and the feedback you received on your course work.

Prof. Alvarado is such an energetic, funny, and supportive professor! He always invites us to ask questions in class and welcomes us to attend office hours as often as possible. Although he is not my major advisor, I really appreciated that he was willing to talk and brainstorm a lot about my course selection for next semester. It is also very impressive that he remembers every question that we asked that didn't get answered, and he would really take time to think about them and get back to us.

08. Type your comments below for [Ryan Alvarado](#).

"Aaaaannnd, it's 1!" "It's hump day!" I think I'd never forget these phrases in my life after listening to them for a semester. Thank you for being THE MOST energetic Math professor I've ever had! I'm so glad that I took this course with you because I genuinely learned a lot and became more interested in exploring more in Math. You deserve a break, so enjoy your sabbatical, and I'll see you in Functional Analysis! (have faith in me for completing measure theory!)

Individual Student Responses (continued)

Please note: If the customizable 7th question is not displayed, it indicates that the instructor has not provided a question for this section.

Course Name: MATH-275-01-2425S A Second Course in Linear Algebra
Instructor Name: Ryan Alvarado

01. How often did you:

Prepare for class

- Often

Attend class

- Always

Participate in class

- Often

Complete assignments

- Always

Meet with professor outside of class

- Often

02. Using specific examples, please briefly describe what you did that you feel was particularly effective for improving your learning in this course?

The problem sets and projects in this class were very effective, because they not only evaluated concepts in lecture, but considerably expanded them, which ended up turning this into an exploratory part of the class where we were building our own understanding of many aspects of the subject, using the mathematical tools from previous classes and from the lectures. I believe this very effectively motivated me and improved my learning.

03. In what ways did this course and instructor [Ryan Alvarado](#) stimulate or shape your intellectual interests, thinking, and/or imagination?

Prof. Alvarado is very charismatic, even when teaching an abstract subject like math, which makes it very engaging to learn the concepts. Furthermore, the way in which he designed the lectures and problem sets is that he doesn't just give the answers or concepts immediately. Instead, we explore questions that lead us to the main point or topic, where usually the questions are posed by the students from our understanding of how mathematical research was about. This course was not only a course about Linear Algebra, but an introduction to mathematical research in many ways.

04. Please describe the most significant skills and/or knowledge that you gained or further developed during this course.

Mathematical reasoning, proof writing and techniques, abstraction, geometric interpretations, time management, etc. Regarding content, how to decompose a matrix in its different forms and when to use each of them, how to give more structure to a vector space and, thus, to a linear map, applications of matrices and linear maps to statistics, differential equations, etc.

05. Considering the overall design of the course, how did the pace, presentation of information, clarity of expectations, assignments, activities, and/or discussions in the course impact your learning?

The presentation of the information was excellent, especially in the order, everything was very coherently connected and the results proved came from a very organized and cohesive trail of thought. The expectation were very clear from the beginning in the assignments to be carried out and how we should approach homework, theorem definition sheets and the projects. The pace started being quite slow, but then began to get faster which made the class much more enjoyable. I think it would be a good idea to leave the review of linear algebra 1 (though keeping it in the homeworks) behind to focus on more new exciting topics.

06. Please describe the nature of your interactions with the instructor [Ryan Alvarado](#) in this course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside class, and the feedback you received on your course work.

Prof. Alvarado was always very engaged to answer questions both in class and during office hours. He worked hard to satisfy all our curiosities regarding applications and interpretations of the material that would make it more accesible for that. I really liked going to office hours as it was a place of cooperation with peers and Prof. Alvarado to work on the homework or the projects.

08. Type your comments below for [Ryan Alvarado](#).

Thank you for this amazing semester. I loved the class and I am really motivated to keep taking other math classes.

Individual Student Responses (continued)

Please note: If the customizable 7th question is not displayed, it indicates that the instructor has not provided a question for this section.

Course Name: MATH-275-01-2425S A Second Course in Linear Algebra
Instructor Name: Ryan Alvarado

01. How often did you:

Prepare for class

- Always

Attend class

- Always

Participate in class

- Rarely

Complete assignments

- Always

Meet with professor outside of class

- Sometimes

02. Using specific examples, please briefly describe what you did that you feel was particularly effective for improving your learning in this course?

professor's lecturing style and passion for the material

03. In what ways did this course and instructor [Ryan Alvarado](#) stimulate or shape your intellectual interests, thinking, and/or imagination?

he was so passionate about his teaching and trying to make sure everyone understood all the material

04. Please describe the most significant skills and/or knowledge that you gained or further developed during this course.

mathematical and analytical thinking

05. Considering the overall design of the course, how did the pace, presentation

of information, clarity of expectations, assignments, activities, and/or discussions in the course impact your learning?

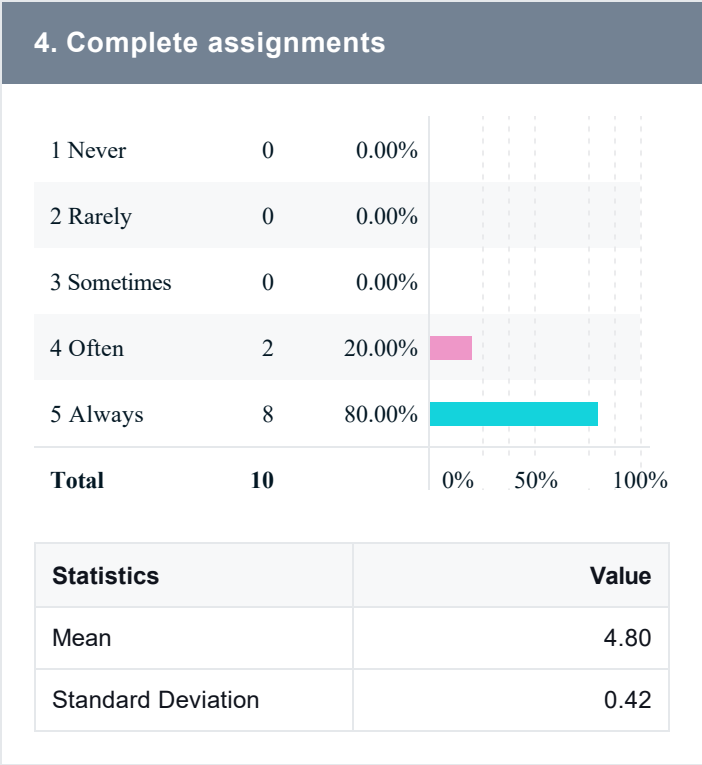
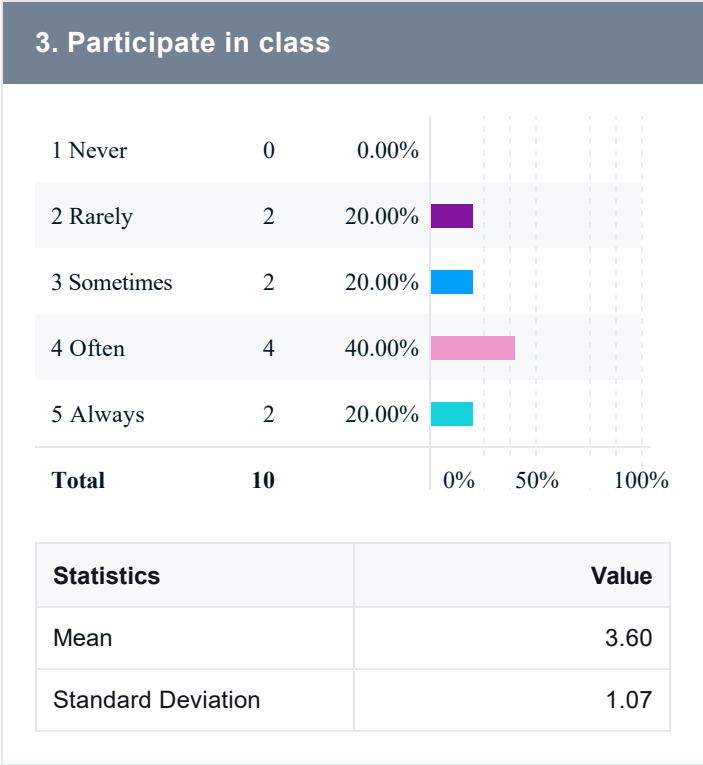
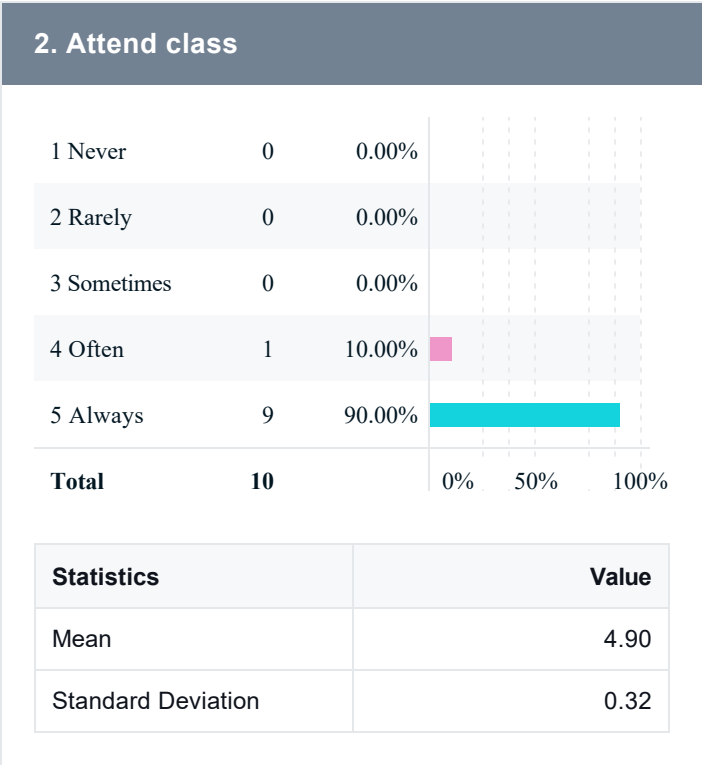
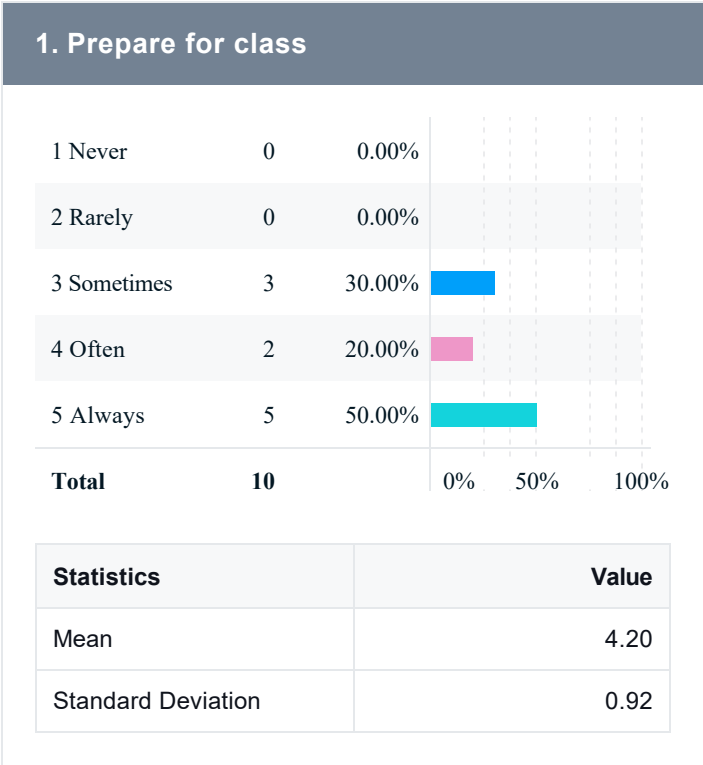
It might have been too fast at times but great overall

- 06. Please describe the nature of your interactions with the instructor [Ryan Alvarado](#) in this course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside class, and the feedback you received on your course work.**

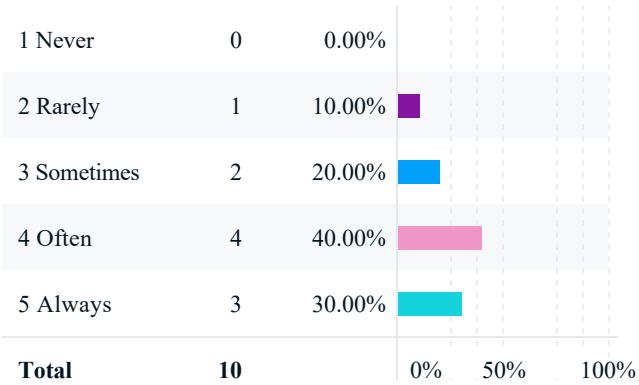
he was always ready and prepared answered every question and was available outside of class hours

Question 1 Statistical Summary

How often did you:



5. Meet with professor outside of class



Statistics	Value
Mean	3.90
Standard Deviation	0.99