#### **EVALUATION:** #1 (of 23)

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. How often did you:

•	Prepare for class	often
•	Attend class	always
•	Participate in class	often
•	Complete assignments	always
•	Meet with professor outside of class	always

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

Looking through notes every night and attending office hours while looking through the homework.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

I genuinely had a lot of fun in this course. It was really exciting to explore Linear Algebra from a perspective of understanding the properties of different structures and how those properties can be used to develop the computations, rather than simply taking the computations for granted.

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

This course gave me a solid understanding of the logical bases used to prove mathematical theorems, as well as various strategies that can be used to fulfill these proofs. Particularly, I gained a strong understanding of why Linear Algebra can be applied to so many different systems (as a particular system needs only to fulfill certain properties to be susceptible to the mathematics supplied by Linear Algebra).

## The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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 structure of the course was brilliant. Every topic had a clear purpose for exploring it and led perfectly into the next topic. Professor Alvarado made an emphasis on the reasons for exploring the different topics, which helped with understanding why different properties were important. Homework assignments were a bit on the longer side, but they helped greatly in understanding the material, so I understand why it was necessary.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

Professor Alvarado did a great job of making sure we had opportunities to participate. He made it feel like we were walking through the proof ourselves, rather than just watching someone go through it, which helped a lot with understanding the different steps. He was readily available outside of office hours, and office hours were very welcoming. In general, it was very clear that he was interested in our success, as students, more than anything.

## Please use this space to provide any additional comments you have about this course and/or instructor.

#### 8. Additional comments:

Professor Alvarado is just a brilliant teacher. He's my absolute favorite professor I've had, and I could not recommend him more, especially for such an important segue course from computational mathematics into proof-based mathematics. In my opinion, it would be a disservice to students taking mathematics courses at Amherst for decades to come if he weren't here to teach them, so I hope he is granted tenure when the time comes.

**EVALUATION: #2 (of 23)** 

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. 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

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

During the first two weeks of linear, I had no idea what linear encompassed nor did I know how I would perform throughout the semester. There was one particular office hour when I walked into Professor Alvarado's office with a look of despair. I sat in office hours, and I asked zero questions. In fact, I left a little early because I was thinking to myself, "Am I cut out for the math major?" During the next office hours, Professor Alvarado proceeded to open up about his background. He took out some of his undergraduate notes on linear algebra and told me, "I have been in your shoes." What makes Professor Alvarado stand out is his humility, honesty, and unwavering belief in his students. As I received my last exam grade back, I am grateful for the amount of growth I have had during Professor Alvarado's class. Professor Alvarado personally sets time aside to individually check in with students and his transparency made taking his time effective in learning how to intensely study for material but also understand that math problem sets take several days to complete.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

Professor Alvarado is more than just a lecturer or researcher. Professor Alvarado is the wholistic professor that every student should have. He opens up about his cycling passions, thousand-strong records, story, and passion for listening to students tell their stories. Professor Alvarado answers questions like, "Why Amherst?", "How was Mizzou?", "Do you think about math all the time?", or "Can I take the Analysis exam (if I pass too?) can I complete the major already?". Professor Alvarado reimagines who can take a math class. Previously, I assumed math majors are geniuses (and they are) but what I lacked was who gets to become a math major. I think the answer lies in having a tremendously sincere and caring instructor like Alvarado. I would have not continued my math journey had it not been for Professor Alvarado kindling the passion for math inside me and for that, I am exceedingly grateful for.

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

I do not overstate myself when I truly believe that one of the most important skills I learned in this class is to understand that math takes time to absorb. I did not start to understand class material until the first exam started to approach. Then, my time during office hours asking questions and self-study allowed me to start to form a clear picture. Also, Professor Alvarado posting notes on Moodle makes learning the material even easier. Moreover, he always answered the question, "Why does this matter?" by drawing a roadmap of all of the concepts covered and crafting a beautiful story of seemingly unrelated problems.

The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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?

Professor Alvarado is incredibly organized, clean, and effective in his teaching methods. There was not one single question where Professor Alvarado beat around the bush. He understands linear intimately and is quick to relate subjects together and ensure that students are receiving knowledge in the easiest way possible without subjects appearing too scary.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

Professor Alvarado's background makes him relatable to FLGI and skeptical math learners. He is unafraid of his background and does not hesitate to point out that he did not come from an Ivy League or any fancy school. I have thoroughly run into Professor Alvarado at Val and have shared many moments over meals. Professor Alvarado is a really easy person to get along with, and I am not joking when I say that he finds a connection with all of his students.

Please use this space to provide any additional comments you have about this course and/or instructor.

#### 8. Additional comments:

Professor Alvarado is a valuable and significant asset to the math community at Amherst. Every former and current student stands to support Professor Alvarado and reaffirms everything positive I have with him. He is a major contributor to the math major and deserves to receive the tenure offer. To not do so would neglect not only the work he has put into the math community but to all the students who sincerely 110% believe that Professor Alvarado deserves a position at Amherst.

**EVALUATION: #3 (of 23)** 

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. How often did you:

Prepare for class often
Attend class often
Participate in class sometimes
Complete assignments always
Meet with professor outside of class often

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

Once I learned that I did not need to write down all the same notes as Prof Alvarado in class and that focusing on taking in information he gives us and reviewing the notes after class, I learned the material much better. Also, using his office hours and the Q Center really helped my understanding of the material.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

Although I considered stopping following the Math major path, Professor Alvarado has encouraged me and inspired me to keep going down this path. He has changed the way I approach problems and has helped me learn to prove my work.

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

I think teaching me ways to approach difficult proof problems has the been the most significant skill that I have gained from this course.

The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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 moved at lightning speed, as all Math courses do. Expectations were clear and Professor Alvarado made the courseload challenging but manageable at the same time.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

He has been incredible. Very easy going, understanding, friendly, and passionate about his work. He truly cares about each of his students and creating a positive learning environment.

Please use this space to provide any additional comments you have about this course and/or instructor.

8. Additional comments:

One of my favorite professors I've had here at Amherst.

**EVALUATION: #4 (of 23)** 

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. 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

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

The Theorem and Definition sheets were amazing tools to review what I'd learned that week and to study for exams. Additionally, the practice problems Prof. Alvarado gave on the homeworks, study guides, and practice exams were incredibly helpful in becoming more fluent in proof writing.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

This course opened my eyes to higher level math. It was the first time that I was challenged in math, having to do extensive work outside of class in order to learn proof writing and theorems and definitions. That being said, the challenge of the class was addicting. Prof. Alvarado was instrumental in shaping my experience in 271 – he was dedicated to offering his time and knowledge to building my foundation. He offered he welcome sense of humor in class to break the ice and make math more accessible to students. He has been the best math teacher I have had at Amherst, convincing me to declare the major with his passion for the subject.

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

The most significant skills I learned in this course were centered around proof writing. Of course, I will need more technical applications of linear algebra later in my math career, but I think that the most useful knowledge I will be applying in the future is centered around understanding and creating my own proofs.

The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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 design of this course was very fast paced. There is a lot to cover in the syllabus, and it is important it is all met since linear is tested on the math comps. There was never a point, however, where Prof. Alvarado went too fast at the detriment of the material he was teaching. He always took time to answer questions, encouraging us to challenge his points and forcing him to prove things. He emphasized a sense of scientific inquiry within math which I found very enlightening.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

Prof. Alvarado is the most outgoing professor I've met at this school. When I first went to his office hours, I felt so at home thanks not only to the decoration, but also his kind presence. He not only connects with his students via math, but by getting to know their interests. He connects with the Amherst community in many ways: I know that he came to multiple orchestra concerts throughout the semester.

### Please use this space to provide any additional comments you have about this course and/or instructor.

#### 8. Additional comments:

Prof. Alvarado is one of the best math professors at this school. He actively cares about his students and teaches math at an extraordinarily high level. He deserves all of the accolades that are given to him and I hope that he's here for many years to come.

**EVALUATION: #5 (of 23)** 

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. How often did you:

Prepare for class sometimes
Attend class always
Participate in class sometimes
Complete assignments always
Meet with professor outside of class always

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

When studying I would write down everything I know without looking at the notes and see how far I could go, and then fill in the gaos from the notes, I also attended office hours for homeworks

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

Some homework questions were challenging in a fun way that forced outside the box thinking

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

Time management and managing how you study so as not to be left behind

The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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 awesome and having three midterms instead of two reduced the study liad for the tests that enabled me to do well

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

I always went to office hours and the professor was always patient and helpful in explaining questions I had

Please use this space to provide any additional comments you have about this course and/or instructor.

8. Additional comments:

Best Math class I have had so far, I was starting to give up on being a math major and switched to Computer science late, but this class changed my mind to stick with math

**EVALUATION:** #6 (of 23)

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. 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

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

Going to office hours was super helpful and making sure that I was doing the bonus exercises and participating in class. As long as I prepared with the material Professor Alvarado gave us, I was never surprised by anything on assessments and I felt like there was always a way for me to succeed.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

Encouraging me to do more, think more, and be positive about math! The classroom had no windows and was my Monday morning class and I still looked forward to it every week. I knew I had support even if I didn't understand anything, but the Professor was super receptive to questions so I always "got" it by the end of class.

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

I learned how to study for math so much more effectively just by being in this class and pushing myself to do well.

## The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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?

Amazing! I literally could not have asked for a better professor. 271 is generally supposed to be a challenge of a class (or at least that's what it said when I looked at the math major packet/pathway thing) but I felt like there was never a point where I wasn't going to get through it. We went fast, had three full exams and I felt ready for all of them.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

Again I cannot stress this enough he was so positive and inclusive to any and all questions, chatty and helpful during office hours, and ready to make sure anyone could get through the course. There were no tricks or weeding-out methods. The math class was truly for everyone and I am so grateful for that.

## Please use this space to provide any additional comments you have about this course and/or instructor.

#### 8. Additional comments:

Please keep this man at Amherst forever!!! I would be utterly lost without him. I was so worried about taking this 271 class because I felt so afraid and confused after taking 220 just because the proofs did not stick for me but I've never been so confident at the end of classes. I would start off confused by new material and then in the span of 50 minutes, I would miraculously understand it. I don't know how he does it but I don't know how anyone gets through linear without him.

**EVALUATION: #7 (of 23)** 

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. How often did you:

•	Prepare for class	always
•	Attend class	always
•	Participate in class	rarely
•	Complete assignments	always
•	Meet with professor outside of class	always

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

To improve my learning in this class, I often reread my class notes and textbook. Beyond that, I would attend office hours, both one-on-one and regular, to get all my questions answers whenever I found myself confused or stuck with the material.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

*In this course, I learned how to recognize patters to simplify complex problems.* 

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

Similar to my answer above, I learned that if you approach problems from the correct angle, you can find ways to simplify them. To do this, you can learn to recognize patterns between different

things that have similar qualities. Then find ways to apply existing techniques to solve those problems. I think this is a great skills, and I hope to apply it in all areas of my life.

# The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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?

At first, the pace of the course felt very quick, but I eventually got used to it. And the material never felt overwhelming, so I think it was paced very well. As for the assignments, they never felt overwhelming and all felt purposeful. Beyond that, I appreciated how flexible and considerate Prof. Alvarado was during midterm season.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

From the very first day of class, Prof. Alvarado created a welcoming and engaging class environment. With his excited, energetic energy, Prof. Alvarado exuded his passion for teaching and math. His energy made class engaging, and I often became excited to engage with the material. It is always great to see how passionate your professors are about what they teach, and Prof. Alvarado is clearly passionate.

### Please use this space to provide any additional comments you have about this course and/or instructor.

#### 8. Additional comments:

Prof. Alvarado is not only an amazing professor but also an amazing person. He truly cares for his students and the Amherst community. It is not always true that a professor truly cares for their students, but Prof. Alvarado makes it a priority to get to know his students. On multiple occasions, I've had the privilege of getting to know him at community events, and I've always felt a genuine desire to connect with his students. Prof. Alvarado is an amazing teacher, professor, and person, and Amherst should strive to find more professors like him.

**EVALUATION: #8 (of 23)** 

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. How often did you:

Prepare for class always
Attend class always
Participate in class sometimes
Complete assignments always
Meet with professor outside of class often

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

I regularly attended office hours and came with questions. I also reviewed class notes before and after so that I was well-versed in the material.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

Professor Alvarado did a fantastic job teaching linear algebra and helping us develop problemsolving skills to master the course material. I really enjoyed attending office hours where professor regularly extended them to hours past the end time to help students. Professor Alvarado always came to class with a lot of enthusiasm. He gave very clear notes and made the lectures exciting. I also enjoyed that on Wednesdays he would start class by saying "happy hump day". After this class, I have no doubts about wanting to pursue the math major. 4. Please describe the most significant skills and/or knowledge that you gained or further developed during this course:

I learned very crucial studying skills in professor Alvarado's class. The math homework he assigned stimulated my learning and the theorem definition sheets helped me consolidate my thinking and stay organized. This class helped me refine by proof solving techniques and understand a lot of the theoretical components of math.

The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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?

Everything about the presentation of the class was great and very well organized. Professor Alverado regularly updated the Moodle page with homework and review material. The pace of the class was perfect and I appreciated that the professor didn't rush topics in order to finish in time. The expectations of the course were very clear and I think the homework assignments helped spark discussion amongst people in the class. I was able to make friends in this class by going to TA hours and I really enjoyed the experience of problem-solving with my peers.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

Professor Alvarado is an outstanding professor. I enjoyed going to class every day and was excited to attend office hours outside of class. I received really helpful feedback on my exams and the lecture notes were a great resource for me to further my learning. Professor Alverado helped create a super fun and collaborative class environment. He asked helpful questions to engage us during lectures and every day after class he was always available for more questions. Professor did an amazing job of encouraging students learning and I'm so thankful that I was able to take a class with him.

### Please use this space to provide any additional comments you have about this course and/or instructor.

#### 8. Additional comments:

The photos of your cats that you put on the front of every exam made my day. I would often flip back to look at the cat photo during the test to calm my nerves. Please continue adding the cat photos on exams for your future students! Thank you for being such a carrying and amazing teacher! You 100% deserve to get tenure and I hope that students will be able to continue learning from you.

**EVALUATION:** #9 (of 23)

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

*PLEASE NOTE:* Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. How often did you:

•	Prepare for class	always
•	Attend class	always
•	Participate in class	often
•	Complete assignments	always
•	Meet with professor outside of class	never

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

Making sure to do the homeworks as well as reviewing the notes from the previous class.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

This class was a really good blend of computation heavy math and more proof heavy math, and I think it was a really good introduction to that way of thinking. In that way, Professor Alvarado cultivated that way of logical thinking in me.

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

Being able to think logically and progress through proofs, and general life, using this mindset.

The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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 excellent and never felt too fast or too slow. The presentation of information was great. The clarity of all the expectations was perfect and you always knew what you had to do to demonstrate knowledge.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

I never interacted with him in a set up time, but if I need to I'm sure he would have been more than happy to. He was always really engaged with student questions and took time to really understand and answer them. I received great feedback on my work, including both what needed work and where I did well.

Please use this space to provide any additional comments you have about this course and/or instructor.

#### 8. Additional comments:

This was my favorite course I have taken at Amherst so far. Professor Alvarado made attending class not only super fun and engaging but also very knowledge building. You should give him tenure:).

**EVALUATION:** #10 (of 23)

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. 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

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

From the start, I would say I was determined and focused; I knew that I wanted to do well in the course, especially because its content had long interested me. I took copious notes, asked questions every chance I got, and was consistently engaged. I wouldn't say there wasn't a moment of realization that I needed to improve.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

Going into the course, I knew I wanted to learn more about abstract mathematics and proof-writing. Professor Alvarado made sure to intersperse different lessons about proof-writing, structuring proofs, and set builder notation when teaching the main content of the course. He managed to simplify complex topics such as induction, biconditionality, and set containment, and he increased my overall confidence in proof-writing.

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

In this course, I learned how to define concepts and ideas instead of characterizing them; I also learned how to properly structure proofs, choose appropriate proof skeletons depending on the question, and pay attention to minute details that tend to be overlooked. Moreover, the course introduced me to a more abstract dimension of mathematics and gave me a deeper look into earlier mathematical topics such as solving systems of equations and redefined things like the 2D Cartesian plane as a vector space with unique properties.

The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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?

Professor Alvarado made sure to put the well-being of his students above anything else, assigning problem sets a week in advance and having them due after midnight. Although the course was taught at a relatively fast pace, he always stopped after huge spills of information to answer students' questions, even if they were immaterial or trivial to some. To make learning accommodations for visual learners, he drew easy-to-comprehend images of things like spans, subspaces, and determinants. He was very forthwith and made himself clear; no ambiguity whatsoever and he offered to re-explain everything if needed. Couldn't ask for a more lenient, understanding, and caring professor.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

Professor Alvarado is my guy! In his office, I feel as if I could be my energetic and vibrant self. We would have long and awesome conversations and he would always help me when I needed it. I met with him various times just to catch up on anything I had missed when I was absent or to get clarification on concepts that I had been struggling to understand. In class, he would never make a student feel bad for asking a question that might some think is irrelevant or better unasked. He validated everyone's questions, thoughts, and feelings, and he strove to boost the morale of students if there was a lack thereof. During Ramadan, he would excuse my lethargy and exhaustion because of my lack of fluid and food intake, and he even offered to extend homework deadlines and excuse absences if necessary. Overall, he made sure to make the learning environment inclusive for all and strayed away from any sort of discrimination.

Please use this space to provide any additional comments you have about this course and/or instructor.

8. Additional comments:

MATH-271-01 Linear Algebra – Spring 2023 Ryan Alvarado

PLEASE GIVE HIM TENURE! HE AND HIS WIFE ADD HAPPINESS TO MY LIFE! PLEASE!

#### **EVALUATION: #11 (of 23)**

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. How often did you:

Prepare for class often
Attend class always
Participate in class often
Complete assignments always
Meet with professor outside of class sometimes

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

I discovered that when I listening during class and limited the notes I took, I could process the presented information more. Later that day, I would go through all of the notes to make sure I really understood all of it.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

I have never taken a math class like linear algebra, and even though the course was difficult, Professor Alvarado's enthusiasm made me want to do well and put a lot of effort into my work. While this course made me realize I probably don't want to major in math (not the biggest fan of abstract mathematical thinking), Professor Alvarado made the class worth taking.

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

I found reducing to echelon form to be the most useful aspect of this class. I know that I will be able to use this skill in my other classes like physics and astronomy. I like being able to apply what I learn in math to my other classes, so I believe this skill is going to be useful.

The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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?

In the beginning, I was extremely overwhelmed. This way of thinking was totally new to me and it was being taught rapidly. It took me a while to develop a system of learning that worked for me, but once I did the course became easier to manage. I greatly enjoyed having all of the class notes online so I could access them at any time. The theorem definition sheets were lovely to have when it came to studying for the exams.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

Professor Alvarado is very engaging and is very understanding. He moves fast through the content, but when someone asks a question he takes the time to answer and make sure that we understand. There was a point in the semester when I was struggling to keep up, and he made sure I was doing okay and helped me get back on track.

Please use this space to provide any additional comments you have about this course and/or instructor.

8. Additional comments:

**EVALUATION: #12 (of 23)** 

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. How often did you:

•	Prepare for class	always
•	Attend class	always
•	Participate in class	always
•	Complete assignments	always
•	Meet with professor outside of class	often

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

Working through homeworks completely, going to TA/office hours for help, and reviews the week's notes before the next week's material starting building on it

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

Extremely engaging during lecture and very supportive and relatable in office hours

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

Abstract thinking, diligent work ethic

The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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 information and clarity of communication from Alvarado was excellent. More time spent talking with the professor and working on homework directly correlated to my better understanding of material. At times, especially earlier in the semester, lectures could be a bit overwhelming in that it was hard to take everything in but I think that it due more to the nature of the course and the amount of material we had to cover. Although it might have been nice to think through some topics a little more slowly I'm not sure if that was anything that could have been cut out to accommodate.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

Alvarado was phenomenal, always very engaged and supportive, and I am very glad that I was able to take linear with him. At the points we I was struggling he acomodated me outside of normal office hours to check in and make sure I was up to speed

Please use this space to provide any additional comments you have about this course and/or instructor.

8. Additional comments:

Hard but engaging course, great instructor. Very much a boon to maths department

**EVALUATION: #13 (of 23)** 

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. How often did you:

Prepare for class rarely
Attend class often
Participate in class rarely
Complete assignments always
Meet with professor outside of class sometimes

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

Practice was everything. Often, reviewing the Theorem-Definition sheet which Professor Alvarado had us make was very helpful for compiling a clean version of my notes. Homework questions were also very helpful. I rarely needed outside assistance.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

It taught me a different kind of Math for the first time, building the proof-based component of my undergraduate math major which I had not before rigorously explored. Professor Alvarado is extremely engaging and always succeeds at making the class accessible.

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

Definitely, knowledge of linear transformations. Having learned about them in high schools, I only truly understood the math behind them and their build-up in this Linear Algebra course. It was mind-blowing! The determinant of a 2x2 matrix was a formula I had learned in Grade 9, but only recently did I understand how it came to be... The experience made me realize how much more I have to learn, even about stuff I already though I knew.

## The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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?

Yes, it helped a lot. The assignments were perfectly balanced. A short but very beneficial theorem-definition sheet activity over the weekend, and one long-but-not-too-long homework which applied our knowledge with some decent challenges. Office Hours were widely available. More than anything, though, Professor's energy and enthusiasm made sure that I stayed focused in class. His unique method of using an iPad was also brilliant - it allowed easy referral to notes in a way that few other professors provide.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

Professor Alvarado has been a source of nothing but pleasant interactions. During Office Hours, he is patient, helpful, and thoroguh when explaining. He is also very approachable. Regarding feedback, he is great too. He always comments with a cheerful tone even when telling you areas of improvement. I cannot remember the last comment he made on an exam of mine which did not end with an exclamation mark. Though small, such a detail is always sweet!

## Please use this space to provide any additional comments you have about this course and/or instructor.

#### 8. Additional comments:

Professor Alvarado is excellent. One of the most helpful, empathetic, humorous and energetic Professors I've had at Amherst thus far.

#### **EVALUATION: #14 (of 23)**

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

## For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. How often did you:

•	Prepare for class	always
•	Attend class	always
•	Participate in class	always
•	Complete assignments	always
•	Meet with professor outside of class	often

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

Going to office hours and asking questions was incredibly helpful during this semester. Professor Alvarado is very approachable, and helped improve my knowledge of the material and my proofwriting abilities.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

Professor Alvarado and the Linear Algebra course gave me an introduction to theoretical mathematics, a departure from my previous experience with math. I certainly struggled with the abstract concepts, but it has given me a new way of thinking and looking at the ideas – how to prove ideas. I still am trying to figure out the connections and applicability of the concepts (there are apparently a lot of connections to chemistry), which is something that I will likely acquire when I take more math courses in the future.

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

Through this class, I have acquired a fundamental understanding of Linear Algebra concepts and operations. Additionally, Linear Algebra has given me introduction into how to think about abstract concepts and proof-writing, skills that I seek to improve in the future.

## The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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 lectures were fast-paced as we had to get through a lot of material. While I didn't get to ask all the questions that I wanted to, there was still time to clarify and ask questions to keep me on track during the lectures. The homework assignments were a very good length (10-12 questions, but challenging), and the exams were very fair and reflected our lectures and homework assignments (combination of calculations and proofs). Overall, the course was very well designed, and made learning a lot of difficult ideas an easier task.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

Professor Alvarado has the remarkable ability to know and see that I have a question, without me even raising a hand or speaking up. That understanding that "there is something that needs to be answered here" has been helpful in getting me to ask questions. His grading on exams is fair and constructive -- I have learned more about proof-writing and my mistakes as a result of his detailed feedback on the exams. Professor Alvarado is incredibly welcoming and approachable, and I have had lunch with him several times at the Math/Stats table.

## Please use this space to provide any additional comments you have about this course and/or instructor.

#### 8. Additional comments:

Professor Alvarado is a great teacher and person! The energy that he brings to the classroom makes the difficult learning experience a lot of fun. He also does a great job explaining ideas in several different ways, and making sure that his students truly understand the concepts. I would like to take another one of his courses at some point in the future (although I do not know what my future courses look like, I am considering taking Proofs, and then potentially Analysis).

**EVALUATION:** #15 (of 23)

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. How often did you:

•	Prepare for class	often
•	Attend class	always
•	Participate in class	always
•	Complete assignments	always
•	Meet with professor outside of class	always

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

Attending office hours and q-fellows hours, reviewing homework and lecture notes

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

I think biggest of all, it was amazing how this course built upon previous concepts from math courses and combined it all into one! I really enjoyed the proof writing and justification aspect of the course as it helped explain why several things which i had learned previously were the way they were!

- 4. Please describe the most significant skills and/or knowledge that you gained or further developed during this course:
  - proof-writing and justification

- analysis

The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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 of the class was a bit hectic at first, and many times the problems-sets felt too long, but I am glad as working through them and finally settling in the class enabled me to understand better!

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

Professor Alvarado is very friendly, encouraging and always willing to help! He pushes me to explore beyond what i think are my limits and i really appreciate that!

Please use this space to provide any additional comments you have about this course and/or instructor.

8. Additional comments:

**EVALUATION: #16 (of 23)** 

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. 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

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

Going to office hours and getting help.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

It got me to major in math.

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

Proof writing and understanding.

The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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 fast but understandable. I also really liked how the notes were also present online in case I accidentally wrote down something wrong or didn't get to copy something in my notes. Assignments and expertactions were made very clear

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

Professor Alvarado was extremely helpful outside of class, especially in times near exams.

Please use this space to provide any additional comments you have about this course and/or instructor.

8. Additional comments:

Professor Alvarado is really good and I highly recommend him for any math student.

#### **EVALUATION: #17 (of 23)**

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

*PLEASE NOTE:* Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. How often did you:

•	Prepare for class	always
•	Attend class	always
•	Participate in class	always
•	Complete assignments	always
•	Meet with professor outside of class	often

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

I found that attending office hours frequently and making notecards of all of the theorems and proofs helped improve my learning.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

Professor Alvarado's class was very well organized and engaging. He helped expand and shape my intellectual interests by focusing not only teaching us the actual formulas and concepts we needed to know, but also making sure that we fully understood the proofs and the reasoning behind why and how we were doing things.

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

I developed a secure understanding of basic linear algebra, but also I learned a lot about how to write and format proofs and in general how to approach mathematical problems in a systematic fashion. I also learned how to approach concepts that at first seemed unintelligible to make sense of and how to incorporate them with my already existing knowledge.

# The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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 well organized and carefully structured so that the ideas built off each other in a cohesive manner. While the course was fast-paced, Professor Alvarado always made sure (both in class and through office hours and individual meetings) that everyone understood what was happening. The homework assignments were well-designed and were very helpful in solidifying my understanding of the course materials and how the fit together.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

Professor Alvarado's kindness and overall enthusiasm for math made this a wonderful course to be in. He was always very engaged with students during class, making sure to answer any questions raised at any point. Through both class time and office hours, Professor Alvarado created an environment where students were encouraged to be curious about math and also work collaboratively with each other to understand and complete the assignments. On course work and homework assignments, we always received extensive feedback and had many opportunities to talk through any comments or ideas that were still confusing to us.

## Please use this space to provide any additional comments you have about this course and/or instructor.

#### 8. Additional comments:

Overall, this was a wonderful class and Professor Alvarado is an absolutely amazing professor. This class would not have been the same if he were not teaching it, and I truly feel that I have grown both in my understanding of math but also as an individual over the course of this semester as a result of it.

**EVALUATION: #18 (of 23)** 

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. 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

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

I found looking at notes after class and attending office hours particularly effective for improving my learning in this course. Because Professor Alvarado always posted his notes, during class, I did not have to worry about copying the notes and instead could focus on the material in class. Additionally, Professor Alvarado created an extremely welcoming office hour environment, and during these office hours, I was able to receive individual help from Professor Alvarado while working with classmates on rigorous problem sets.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

Instead of focusing on the "what" of theorems, Professor Alvarado's linear algebra class focused on the "why" of theorems and propositions. Due to my understanding of the reasons for the theorem, I felt intellectually stimulated and satisfied.

Additionally, Professor Alvarado used a variety of tools (such as 3d modeling, drawings, and equations) to demonstrate topics in linear algebra. Oftentimes, when I found an equation hard to

understand, I could rely on his drawings to learn the material in a way that suited my learning best.

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

I definitely learned lots of linear algebra material. However, I think the most valuable skills and knowledge were my proof writing and argumentation skills. Professor Alvarado taught and encouraged us to utilize many proof methods to help us understand why theorems were true. Because of Professor Alvarado's class, I feel as if my proof-writing skills, and even my argumentation skills (for example, in essays), strengthened.

The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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?

Professor Alvarado designed his course extremely well. As a core class, linear algebra covers lots of material. While the course did feel fast at times, I never felt as if I was overwhelmed by the quantity of the content. Professor Alvarado also uploaded the class lecture notes, which was an excellent way of presenting class information as instead of copying the notes in class, I could actively focus and engage in the material in class.

The assignments, while rigorous, were extremely well thought out. Each question built upon class material from the previous weak. The grading for the homework and tests was extremely fair and well-defined; I never felt as if any points were unjustly taken from my homework, and his feedback on my tests allowed me to strengthen my proofs.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

In class, Professor Alvarado always encouraged us to ask questions related to the lecture. I often had questions about proving theorems a different way, and he'd always answer our questions. Professor Alvarado also individually asked students if they had questions if they sported a confused look on their faces; I found this incredibly impactful during the first weeks of classes, as I am naturally a shyer person, but I was given a chance to more easily ask questions in class.

Please use this space to provide any additional comments you have about this course and/or instructor.

8. Additional comments:

MATH-271-01 Linear Algebra — Spring 2023 Ryan Alvarado

Great Professor - One of the best I've had at Amherst. Would take him again and recommend him to friends.

**EVALUATION: #19 (of 23)** 

Thank you for taking the time to provide feedback about your experience in this course. Teaching is highly valued at Amherst, and your reflections are an important part of our efforts to assess and improve our teaching. Please be thoughtful, fair, and honest. Your instructor will be able to view your responses only after final grades have been submitted, and to them your identity will be anonymous. As part of the reappointment, tenure, and promotion process, your responses will also be read by the president, provost and dean of the faculty, and other senior faculty, and to them your identity will not be anonymous.

*PLEASE NOTE:* Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. How often did you:

•	Prepare for class	often
•	Attend class	often
•	Participate in class	rarely
•	Complete assignments	always
•	Meet with professor outside of class	rarely

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

I thought that doing the theorem definition sheets really helped me improve my learning. Being able to look over my notes and find theorems and definitions really helped me look over the past week's material.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

Prof. Alvarado would always answer questions and provide clarity whenever it was necessary. He would leave problems for us to do outside of class to ensure that we were understanding the material and always was available for office hours.

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

I really gained a better understanding of math. The way that Prof Alvarado taught the class was very interesting because he made it seem like a story. Everything we learned applied existing knowledge. I also learned how to write proofs and make an argument, as well as be detailoriented with my answers.

The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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 of class was fast in my opinion but the presentation of information was done so in a way that made it easier to learn. Prof Alvarado made class really clear and gave us homework that related to the class, as well as extra problems. The assignments were lengthy at times, but they always helped me better understand the content. I also liked that he would share his notes, in case he added something after class or I missed something during class due to the fast pace.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

Prof. Alvarado is among the nicest professors I have ever had. Every interaction was meaningful and he would always answer any emails or questions in a timely manner. He always engaged with students and it is obvious that every student really enjoyed having him as our professor. He was available many days out of the week.

Please use this space to provide any additional comments you have about this course and/or instructor.

8. Additional comments:

**EVALUATION: #20 (of 23)** 

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**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. How often did you:

Prepare for class sometimes
Attend class often
Participate in class never
Complete assignments always
Meet with professor outside of class rarely

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

Having posted the notes online was a huge help to my progress in this course. I feel like absorbing material the first time in class and understanding it was near-impossible for me, so having the ability to check online notes was vastly helpful.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

Overall, I think linear algebra taught me to not take anything deemed "simple" for granted. Behind simple elementary school level addition properties lies linear mappings and isomorphisms/ behind high school trigonometry lies diagonalizability in matrices. This course certainly offered a new perspective on things, though it was a bit difficult to show an appreciation for the complexity of the subject. It felt like new terms were constantly being added (kernel, image, bijectivity) that often made me question whether or not it was even worth studying basic math at such a high level.

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

This was my first class with mathematical proofs. I struggled with it a lot, but I think I've gotten better at it. As stated before, I think Linear Algebra really does unify a lot of mathematical subjects taught prior to college-level classes, and it was nice to see the all the different techniques being mashed into one field of study. A skill I developed thus, was the ability to apply previous knowledge to define new things.

The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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 felt a bit quick, but it's understandable considering we only meet 3x a week for 50 minutes. I often fell behind on material because it took me multiple days to understand correct mathematical notation/language.

I think the course would be better if proper proof techniques were emphasized more earlier on in the course, especially in the notes. For vector space proofs, I remember being recommended to do a Proof by Contradiction by a Q-Fellow (to show axioms fail to hold) before it was taught in class. I do understand that this is covered more rigorously in a 220 course, but it would be helpful for students who were not exposed to the material previously.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

Graded exam work was straightforward, I understood my mistakes. Frequently answered student questions with good responses. Showed concern when I missed class, it was pretty clear that the professor cared for his students. Very approachable in office hours.

Please use this space to provide any additional comments you have about this course and/or instructor.

8. Additional comments:

Ryan Alvarado you are a great person never lose the charisma **EVALUATION: #21 (of 23)** 

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**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. How often did you:

•	Prepare for class	always
•	Attend class	always
•	Participate in class	always
•	Complete assignments	always
•	Meet with professor outside of class	often

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

Starting homework within the two days it was assigned was particularly effective for improving my understanding of the content. Also, Prof. Alvarado's Theorem Definition Sheets that were due every week were excellent at clarifying what we covered in a coherent picture, which made subsequent content easier to understand.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

Prof. Alvarado is a clear thinker who presents a coherent story in class. All conclusions follow from what we covered in past classes. Prof. Alvarado emphasizes the connection between different topics we learned throughout the semester, often returning to seemingly surprising connections that enhance my understanding of linear algebra. Prof. Alvarado's use of a tablet for class notes is also great, as I can revisit the notes after class, solidifying my understanding. Instead of frantically copying notes from the blackboard, I can listen to Prof. Alvarado's explanation knowing that I'll be able to take a second look at the notes after class. Furthermore,

the use of a tablet allowed Prof. Alvarado to show visualizations of vector spaces in class, which was particularly helpful for understanding topics such as transformations and change of basis.

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

Presenting my thoughts on paper in a logical, step-by-step manner. Linear Algebra with Prof. Alvarado improved the clarity of my thoughts in math and beyond.

The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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 enjoyed the pace of the course. Prof. Alvarado believed in our ability to master the content, and such beliefs tend to manifest in practice (as they did in this course). Expectations regarding our work were very clear.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

Prof. Alvarado always answered questions in class in a way that all students clarified their confusions after Prof. Alvarado answered their question. The learning environment felt very inclusive; I sensed that everyone felt welcome to ask any questions they like, even ones that students often mistakenly consider "stupid." Office hours with Prof. Alvarado were great. Prof. Alvarado helped students with homework problems in a clear manner. Class feedback was timely and appropriate. All midterms got graded within five days.

Please use this space to provide any additional comments you have about this course and/or instructor.

8. Additional comments:

**EVALUATION: #22 (of 23)** 

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**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. How often did you:

Prepare for class always
Attend class always
Participate in class sometimes
Complete assignments always
Meet with professor outside of class often

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

I submitted the theorem definition sheets that Professor Alvarado assigns each week. This allows me to look back at specific theorems and definitions that are useful for problem sets and studying.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

Professor Alvarado was always incredibly engaging. He showed enthusiasm and charisma that was contagious, even on days when everyone was stressed and tired. His presentations are well thought out and he is one of the best lecturers I've had during my time here.

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

I learned how to think in abstract ways. This was the first class that was less computational and more theoretical, so it was a difficult adjustment. However, after time and careful guidance from Professor Alvarado, I eventually grew more confident.

# The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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?

They helped my learning greatly. The pace was very quick and the assignments were difficult, but Professor Alvarado was always there to answer questions or clarify difficult topics. I felt like I was always in good hands, something that is not always the case with Professors at Amherst.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

As I've said before, Professor Alvarado was incredibly engaging. He made everyone feel heard and supported despite such a big class. He always seemed available to answer questions during office hours and even at odd hours when I'd stress-email him a question. He was always there and is incredibly supportive all around.

### Please use this space to provide any additional comments you have about this course and/or instructor.

#### 8. Additional comments:

I can't rate this person high enough. I found his class incredibly challenging and was definitely not my best grade at Amherst. However, I still found his lectures and assignments rewarding and helpful to the way i think about math generally. Professor alvarado is one of those teachers that has shaped the way I think not just in math, but in all the subjects I am interested in. He is a wonderful teacher and human being, and it'd be a crime if wasn't able to stay at Amherst! Love love love him!!

**EVALUATION: #23 (of 23)** 

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**PLEASE NOTE:** Use the TAB key or your mouse to move between questions; the Enter / Return key will submit the webform.

For the questions below, please evaluation your own commitment to and effort exerted in the course.

1. How often did you:

•	Prepare for class	always
•	Attend class	always
•	Participate in class	always
•	Complete assignments	always
•	Meet with professor outside of class	rarely

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

Adjusting my expectations for workload, rethinking my analytical vs proof based thinking.

The following questions ask you to reflect upon the ways the course and instructor helped you to develop your thinking, skills, and abilities. Please provide specific details to support your reflections.

3. In what ways did this course and instructor stimulate or shape your intellectual interests, thinking, and/or imagination?

Professor Alvarado is an excellent Professor. He challenged pushed us to do our very best, and provided sincere help along the way. I was forced to adjust to a greater workload, but eventually realized that the only way to learn was to work and work and work. He taught me that more than any teacher here. I loved the logic of proofs, and he stimulated my math experience in a large way.

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

Analytical thinking, more abstract analysis, perseverance, time management.

## The following questions ask you to reflect on how the course structure and your instructor's teaching affected your learning in the course. Please provide specific details to support your feedback.

5. 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 design of the course was a story. Professor Alvarado created it purposefully to lead us somewhere, with math as the driving force. He used his extensive knowledge of linear algebra to provide us with theorems, definitions, proofs, and a manner to navigate them all. I loved learning math in a manner that was a journey.

6. Please describe the nature of your interactions with the instructor in the course, including the instructor's engagement with student questions and ideas in class, their cultivation of an inclusive learning environment, their availability outside of class, and the feedback you received on your coursework.

I liked him so much that I asked him to be my advisor after 4 weeks! He is exceptionally helpful and available to all his students. He is kind and generous with his knowledge. He is intelligent and well versed in everything math.

### Please use this space to provide any additional comments you have about this course and/or instructor.

#### 8. Additional comments:

Professor Alvarado deserves to be tenured at Amherst College! I cannot think of anyone who deserves it more!!