

EVALUATION: #1 (of 13)

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 | <i>often</i> |
| • Attend class | <i>often</i> |
| • Participate in class | <i>often</i> |
| • Complete assignments | <i>always</i> |
| • Meet with professor outside of class | <i>often</i> |

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

The problems sets were the most effective part of my learning this semester. Talking through ideas and seeing thm/results applied really helped me grasp the material. The thm/defn sheets were also very helpful for exams and 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?

Professor Alvarado was very energetic and encouraging - this energy motivated me throughout the semester. Professor Alvarado also always gave multiple versions of material- i.e symbolic, written, verbal, visual. Seeing/hearing different versions of the material really helped my learning and thinking. The structure of the class was also very logical and built nicely.

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

Rigor! This class taught to me pay attention to detail. It also significantly improved my proof writing skills. I am now so much more confident structuring my proofs/arguments.

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?

As a core math class, this course was rightfully challenging. However, I am definitely mentally exhausted from the workload and pace of the course. I am proud of myself for all of the effort and time I put into the material, but it did sometimes take a toll on my other courses and overall wellbeing. The remote, asynchronous structure of this class made the material particularly difficult. The switch to asynchronous learning happened very quickly and suddenly at the beginning of the semester. Although understandable, it was really really hard to learn this level of material on my own. We did have chances to check-in and talk to Professor Alvarado, but I often felt disconnected and behind.

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 amazing teacher. He is super personable, dynamic, and caring. He worked hard to cultivate an inclusive learning environment. I came into the semester nervous to ask questions, but by the end was regularly participating in discussions. He is one of the best teachers I have had at Amherst - I just wish the circumstances of the class had been different!

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

8. Additional comments:

No response

EVALUATION: #2 (of 13)

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.

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

1. How often did you:

- | | |
|--|------------------|
| • Prepare for class | <i>often</i> |
| • Attend class | <i>often</i> |
| • Participate in class | <i>sometimes</i> |
| • Complete assignments | <i>often</i> |
| • Meet with professor outside of class | <i>rarely</i> |

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

One of the most effective things I did was form a study group to meet up with consistently to brainstorm approaches to homework and review concepts on a regular basis. It also allowed me to get closer to some friends along the way!

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 really loved learning calculus, but this course showed me that a lot of the concepts from calculus were things I had just been taking for granted. It was really interesting to revisit the content (some of which I even remember from high school) and dive into what mechanisms work in the background to make it all work.

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

I think my logic comprehension improved a lot in this course and my proof-writing skills improved somewhat.

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 course was necessarily quick and I do think there have been points where I felt behind. But I recognize the amount and level of material we had to get through somewhat required a fast rhythm. The information we learned was always clearly laid out and it was really helpful to have a variety of ways to interact with the material (i.e. video notes, synchronous sessions, etc.). Expectations in the class were also very clear -- Professor Alvarado would provide semi-regular email updates laying out expectations and how they updated as the semester went on, which was great.

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 a genuinely charismatic person who makes an active effort to check in on students. He also made sure to use synchronous sessions as equitably as possible by seeking out students individually to see if they had questions.

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

8. Additional comments:

Professor Alvarado really visibly cares for his students. His commitment to giving us as good of a learning experience as possible, despite all the obstacles that we faced this semester, really motivated me to give the class the same effort in return as much as I could.

EVALUATION: #3 (of 13)

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

1. How often did you:

- | | |
|--|------------------|
| • Prepare for class | <i>always</i> |
| • Attend class | <i>always</i> |
| • Participate in class | <i>often</i> |
| • Complete assignments | <i>always</i> |
| • Meet with professor outside of class | <i>sometimes</i> |

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 weekly, whether the in-person 'class' sections or the Friday zoom hours.

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?

Confirmed my desire to major in math! Helped me see connections between mathematical concepts that were previously presented as disparate (eg, sequences, series, and differentiation).

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

Much stronger proof-writing ability. The skill to accurately and completely prove a statement by drawing on many different theorems and concepts.

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?

Overall, it was great. I think the sequences and series of functions section went by quite quickly, though. For the first ~9 weeks, I felt great. For the last few, I've felt a bit like Oobleck, non-Newtonian fluid-y: by that I mean the pace of information presentation was simply so fast that it simply bounced off my brain, but before I could nicely absorb it. I wonder if another lecture or so on types of convergence would have helped that.

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.

Great! Alvarado was available, engaged with questions helpfully without ever giving the direct answer, and certainly cultivated an inclusive learning environment.

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

8. Additional comments:

No response

EVALUATION: #4 (of 13)

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

1. How often did you:

- | | |
|--|---------------|
| • Prepare for class | <i>often</i> |
| • Attend class | <i>always</i> |
| • Participate in class | <i>often</i> |
| • Complete assignments | <i>often</i> |
| • Meet with professor outside of class | <i>often</i> |

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

The theorem/definition sheets from this class were my most helpful tool in helping me complete homeworks and solve problems. With recorded lectures, I was aided by the ability to rewind and pause when I was lost or unsure about what was happening. I also thought the lecture notes posted online were useful resources.

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?

The instructor taught me how to think about mathematics as a web of inter-connected concepts where one problem can involve many different concepts from around the course.

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

Most importantly, I developed a theoretical foundation for calculus in this class. More generally, I further developed my proof-writing skills and learned how to succeed in a higher-level mathematics class.

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 hybrid first month of the class was fine and standard for a math class for me as an in-person student. The new format at first seemed odd to me at first but ultimately worked well considering the circumstances, and while overall was not as good as in-person class it did improve the office hours situation. Pace and difficulty of the course seemed to hasten a bit as the semester wore on; it may help to spend less time on the beginning material and more time on the later material. Expectations were clear. Assignments seemed of the appropriate difficulty and length for a class of this rigor.

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.

The instructor was eager to accost student feedback, and, unlike the vast majority of Amherst classes, it actually felt that he seriously considered and acted upon student suggestions. In the hybrid segment of the course, the instructor gave ample opportunities for student participation in class, but participation in class of course was not possible with recorded lectures in the later part of the course. Nonetheless, the instructor always was careful to involve every student who attended office hours, and provided very useful help during them. The instructor also seemed to care personally about his students and did successfully cultivate an "inclusive learning environment". Availability outside class was good. Feedback received on course work was thorough and explained in-depth why I got a problem wrong instead of just saying it was wrong.

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

8. Additional comments:

No response

EVALUATION: #5 (of 13)

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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 | <i>often</i> |
| • Attend class | <i>rarely</i> |
| • Participate in class | <i>rarely</i> |
| • Complete assignments | <i>always</i> |
| • Meet with professor outside of class | <i>rarely</i> |

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

I frequently met with Allison Randy-Cofie, almost once a week to go over the lecture material. This helped clear up many of my misunderstandings. I took detailed and color coded notes which I could easily refer back to. I attended most of the TA fellow hours this semester and they were stellar in explaining and helping me.

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's energy and passion for teaching and Analysis made me and the whole class excited to learn even despite not fully understanding the material. Professor frequently reached out to our class as a whole as well as individually to check up on our well being. He truly cares about each one of his students and it made me feel part of the class even though we had asynchronous lectures. His support kept me going!

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

I learned to be able to sift through asynchronous lectures in an efficient manner. I reinforced my proof writing abilities.

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?

Lectures are very very fast paced. Switching to asynchronous videos greatly hindered my ability to learn. While Professor made the lectures less than an hour, I felt that the pace quickened. Without being able to hear my fellow classmates ask questions and to directly engage in the material which helped pace the in person classes, I started to feel overwhelmed with this format and quickly fell behind in watching the lectures. The way Professor Alvarado structured this course really challenged me but he made sure that there was plenty of support. I do want to point out that the problem sets, while very necessary, were quite lengthy. I would spend most of my afternoons and evenings working on the problem sets.

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 so receptive to student engagement. He truly cares in creating an inclusive environment. I wish that synchronous lectures would have been best, but Professor put in so much effort to make changes to include both remote and on campus students.

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

8. Additional comments:

No response

EVALUATION: #6 (of 13)

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

1. How often did you:

- | | |
|--|---------------|
| • Prepare for class | <i>always</i> |
| • Attend class | <i>often</i> |
| • Participate in class | <i>always</i> |
| • Complete assignments | <i>always</i> |
| • Meet with professor outside of class | <i>often</i> |

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

going to class/ office hours and TA hours, talking about the homework with peers

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 was really interesting to take this course because it provides proof/background for so much lower level math! I really enjoyed Professor Alvarado's energy and teaching style and found it to be really engaging.

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

My proof skills definitely improved a lot, I learned LaTeX, and I now have knowledge on a whole new field of mathematics!

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 pretty fast in the middle of the course, but there's a lot to get through so I'm not sure anything can be done about that. The problem sets were really helpful in reinforcing my understanding of the material (although some of them were really hard), and the Theorem-Definition sheets were really helpful for reinforcement and on the exams as well. Professor Alvarado created a calendar to help us keep track of assignments, which was really helpful.

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 such a wonderful, energetic, caring professor! He always engaged with student questions and ideas really thoroughly, and also just made sure to check in with students, see how they were doing, and engage in that way. In addition to checking in with students, Professor Alvarado invited really frequent feedback, and made sure to incorporate it, even when it gave him a lot of extra work. I definitely felt really supported by Professor Alvarado throughout the semester, which was especially valuable given the added difficulties of learning this year. I will add that it would've been nice to have problem sets back faster, especially since we often didn't have feedback before we had an exam on the same material--would it be possible to hire another grader for the course?

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

8. Additional comments:

EVALUATION: #7 (of 13)

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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 | <i>sometimes</i> |
| • Attend class | <i>often</i> |
| • Participate in class | <i>rarely</i> |
| • Complete assignments | <i>always</i> |
| • Meet with professor outside of class | |

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

I started reading the book and watching youtube videos towards the last third of the class and I think that really reflected on my performance in the 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?

I think the difficulty of the material paired with the demand to write good proofs really helped me develop an intuition for constructing logical and consie arguments. I actually appreciated the fact that Professor was strict in grading the proofs the way that he did because it made me better eventually.

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

More Math knowledge of course which is always interesting and the ability to think clearly and concisely given a great deal of information - solving a problem by being flexible with a different number of ways.

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 deisgn was great. I felt like Professor did everything he could in a pandemic with connectivity issues to make things accessible and reasonably convenient for us. The pacing of the videos was great and I felt as if the class was not even disrupted despite the given times.

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 was great in helping me stay focused. There have been a lot of busy things going on behind the scenes and he reached out to me multiple times to make sure that I was doing alright. He is a good person who cares a lot about how he teaches this course and represents the department well.

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

8. Additional comments:

No response

EVALUATION: #8 (of 13)

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

1. How often did you:

- | | |
|--|---------------|
| • Prepare for class | <i>always</i> |
| • Attend class | <i>always</i> |
| • Participate in class | <i>often</i> |
| • Complete assignments | <i>always</i> |
| • Meet with professor outside of class | <i>often</i> |

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

Having an online notebook of the lectures in 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?

He used a lot of real world examples to explain how graphs and functions operate and he had fundamental themes to motivate us throughout the course.

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

My proof-writing skills have definitely been sharpened and my ability to explain "simple" concept very rigorously.

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?

Fast paced but there was a lot to cover. Very clear expectations, especially when we made the switch to hybrid classes.

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 is famous for being incredibly helpful outside of class, super easy to have a conversation with, and constantly checking in with students to make sure they're on track.

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

8. Additional comments:

Loved this course!! Thank you so much Professor Alvarado for making my last major class at Amherst an amazing experience.

EVALUATION: #9 (of 13)

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

1. How often did you:

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|--|---------------|
| • Prepare for class | <i>often</i> |
| • Attend class | <i>always</i> |
| • Participate in class | <i>often</i> |
| • Complete assignments | <i>always</i> |
| • Meet with professor outside of class | <i>often</i> |

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

Getting into a much more regular schedule with watching lecture videos and completing theorem definition sheets after every lecture helped alot. This was mainly important since it was asynchronous but as for lessons that I can take away from this for a regular semester is just reviewing material regularly (through thm-def sheets or through office hours). Also, I really enjoyed the way office hours and homeworks were organized in that having a Friday office hour to get an early start on homework was super helpful to just decrease the stress involved with 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 think this course did an awesome job skillwise and reasoningwise. Skillwise I think I have a completely different way of approaching proofs - I feel much more confident with the notation, with the methods, etc. I've gotten in a good habit of writing down what I know and what I want to show and thinking through the different ways of proving statements (contradiction, induction,

contrapositive, direct, etc). Also, I've gotten much better at using latex to typeset math which is a skill I will use in many other classes. Also, reasoning-wise I feel that I've gotten much more organized with my thinking, not just through working through proofs but in thinking about making arguments in other classes. Lastly, this class has made me much more curious about math - I initially took this course intending for it to be my last course in math but after this I have so much more I want to explore, especially in the realm of mathematical proof and logic.

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

- 1) Understanding of proof methods and techniques, generally*
- 2) A solid understanding of analysis and the underlying topics. In particular learning about power series is super helpful for physics and min/maxima and derivatives is super helpful for economic*

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 thought the course was amazingly designed - thought and effort was put into every single lecture, every example, every discussion, etc. One thing I particularly appreciated was the way concepts were motivated and flowed from one topic to another - in other classes sometimes I feel that concepts just move around and its hard to understand the motivation/importance of topics. However in this class every single new topic was connected to old topics and this made the topics more interesting (Which made learning easier) but it also helped me think about future topics and engaged my curiosity. Also, the professor was extremely attentive and helpful in office hours.

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 attentive to all students in office hours/in class, and in particular for students who are more shy or introverted. Sometimes in other courses I can feel uncomfortable butting in and getting my questions answered but Alvarado always checks with every single student in office hours what their questions are, giving them space/time to get their questions answered.

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

8. Additional comments:

Professor Alvarado led a hike for students at the end of the semester and I can say easily it was one of the highlights of my semester! It was a wonderful way to get to better know other students in the class and just really relieve stress before the start of finals week. It was a really thoughtful thing to do and I appreciated it greatly.

EVALUATION: #10 (of 13)

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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 | <i>always</i> |
| • Attend class | <i>often</i> |
| • Participate in class | <i>often</i> |
| • Complete assignments | <i>always</i> |
| • Meet with professor outside of class | <i>often</i> |

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

I watched lecture videos and took notes according to the scheduled calendar made by Professor Alvarado. I visited most help hours including those by the Professor, Q center fellows, and TA fellows.

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?

Profssor Alvarado's energy is infectious. He made it possible for me to enjoy the most challenging course in math I have taken so far.

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

I learned how to write proofs and problem solve much better than before.

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 course was set well and was lenient when considering the effects of the pandemic. The information was presented consistently and clearly. Expectations were always clear and in person office hours made discussions about the problem sets engaging and worth attending.

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.

Profssor Alvarado consistently made himself available for four hours every week, with two in person. I felt consistently challenged in this class but I thought that Professor Alvarado made me feel much more comfortable with being uncertain.

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

8. Additional comments:

I am so grateful to have taken Professor Alvarado's class before he takes a year off! This class was a great experience because of him.

EVALUATION: #11 (of 13)

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 | <i>always</i> |
| • Attend class | <i>always</i> |
| • Participate in class | <i>rarely</i> |
| • Complete assignments | <i>always</i> |
| • Meet with professor outside of class | <i>sometimes</i> |

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

No response

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?

No response

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

No response

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?

No response

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.

No response

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

8. Additional comments:

No response

EVALUATION: #12 (of 13)

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 | <i>sometimes</i> |
| • Attend class | <i>sometimes</i> |
| • Participate in class | <i>always</i> |
| • Complete assignments | <i>always</i> |
| • Meet with professor outside of class | <i>sometimes</i> |

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

I tried to be super focused when in lecture and I tried to supplement my knowledge by reading the book and asking conceptual questions (not necessarily related to specific homework problems) in office hours.

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 that the biggest thing I will take from this class will be the intense mathematical rigor that is so important in all of higher-level mathematics. I am very grateful to Prof. Alvarado for instilling that rigor in all of us and for being very patient when it comes to reaching that level or rigor in assignments and exams.

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

I already mentioned rigorous proof writing, which was a huge thing in this class. I would also like to mention mathematical quantifiers as a specific mathematical concept that I got very good at during this year. I appreciate that a lot, because quantifie

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 liked the pacing of the course. I think that Prof. Alvarado is a great lecturer even though, as he always likes to point out himself, he does talk quite fast. All jokes aside now, I really enjoyed his lectures, and I was very sad to learn that we would have to transition to a fully remote class, because the people that were not on campus were, understandably so, having a much worse experience than us (the in-person students). After we transitioned to a fully-remote system, I think that Prof. Alvarado did as well as he could have done. There is only so much you can do when you don't see your students. He was nice enough to make the in-person meetings optional, but that just meant that us, students, did not come to them as much as we should have, could have, and even wanted to. I know that for my case, the fact that I had early morning lifts and other classes (which were mandatory) made it less likely for me to show up to in-person sessions, even though I gave it my best effort, because I really enjoyed them.

In terms of expectations, Prof. Alvarado is great. Everything was very clear, organized and to the point, which I very much enjoyed.

I think his assignments were very fair, but still interesting and intellectually challenging (as math assignments should be).

In terms of activities, I really enjoyed all of them, even the group homework assignments that were a thing in the first half of the semester. It seems that the students just didn't enjoy those that much, which is understandable in a way, considering that we had to change the way we operate completely, in the middle of the semester (again, because of the bad experience the remote students had).

The office hours with Prof. Alvarado were also super enjoyable for me. I felt more than comfortable to ask math-related (or not math-related questions).

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 just a great person overall. I really enjoyed learning from him this semester, and this Analysis class that he taught, even though we had to change the whole system in the middle of the semester, was one of my favorite classes at this school.

He was always full of positive energy, always willing to answer our questions and convey his knowledge and he always made sure that everyone was feeling welcome in his classroom or office hours, or any other space where we were all together. He is also quite funny, which I, as a person

who comes from the part of the world where people are a bit less formal than in the States, really appreciated. I'm sure it made both me and other students not afraid to "ask something dumb" and to think freely in general. I think that it helped my math a lot, because I would always question even the things that were "obvious" in front of Prof. Alvarado, and he would have great insights that would help my understanding quite a bit.

All in all, I really have nothing bad to say about Prof. Alvarado. He is a great professor and a great person, and I am just sad that I won't be able to take more classes with him, because he is taking his sabbatical next year, which will be my senior year.

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

8. Additional comments:

No response

EVALUATION: #13 (of 13)

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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 | <i>often</i> |
| • Attend class | <i>always</i> |
| • Participate in class | <i>often</i> |
| • Complete assignments | <i>always</i> |
| • Meet with professor outside of class | <i>sometimes</i> |

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

I think as with most courses, office hours were the best way for me to get the most out of the course. Professor Alvarado was extremely helpful in those times and did a good job at making sure we understood the entire process of a problem. I think regularly attending office hours helped keep me on track with the 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?

During some of the later office hours, Professor Alvarado was not afraid to sort of bring up small examples of things beyond Math 355 and uses for proof techniques beyond just this course. Additionally, he didn't lock his students into a particular proof technique for proving certain results. He was certainly willing to exchange emails about a less standard proof technique in order to see a student fully blossom. I think this willingness to engage with creativity in problem solving was something I have not always had with other professors in my time at Amherst.

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

Though this was my last math class here at Amherst, I feel like it fully solidified everything I've learned about proving mathematical results. I feel much more confident now about laying down my start and end points and massaging out the bridge between t

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 think that my qualms with the course don't have to do with Professor Alvarado as much as they have to do with the circumstances of the pandemic. During the couple weeks where we were in person, the class was spectacular. I felt extremely engaged and also felt that the material was being delivered at an appropriate pace. Unfortunately, when we transitioned to Zoom, I feel like the course went downhill a bit, personally. I think Professor Alvarado's energy is best suited to an in person environment. He did an excellent job of creating videos that covered all the material and he provided a wealth of relevant examples. However, I felt that with this being the second online semester, Zoom and pre-recorded lecture burnout hit and made the class more difficult to manage. I definitely think if we kept all of the individual homeworks, collaborative homeworks, theorem definition sheets, and other responsibilities on top of remote learning, I may not have been able to keep up.

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 by far one of the most charismatic professors I've had at Amherst. He really wants students to succeed. He is almost always available via email and has offered many times to meet to discuss the lecture material or the homeworks. Homework and exam comments were always quite detailed and I never felt lost as to what mistakes I had made after reading those comments. Overall, I really enjoyed taking this class. Professor Alvarado was definitely willing to engage in lots of different discussion and I think I got a lot out of this course. I definitely wouldn't have wished for any other instructor.

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

8. Additional comments:

I think that one area where he may find some improvement is through mid-semester student feedback. I hesitate to ask that he add more work for the students, but this could be one of the options he gives for participation credit in some form or could take up a homework question. When we lost the collaborative homeworks, we lost the pedagogical questions that acted as student reflections. I feel if he had added a post-midterm reflection and made filling 2 or 3 of those out one of the options for participation credit, it wouldn't have added a significant workload and would have allowed him to gauge the overall progress of the class in order to direct his teaching/office hours. This is a relatively small comment, however.

EVALUATION: #14 (of 13)

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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 | <i>always</i> |
| • Attend class | <i>always</i> |
| • Participate in class | <i>always</i> |
| • Complete assignments | <i>always</i> |
| • Meet with professor outside of class | <i>always</i> |

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

- *keep up with videos based on calendar*
- *go to office hours and attend synchronous sessions always*
- *ask questions*
- *start homework very early*
- *go to q center for 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?

- *The visual diagrams were incredible.*
- *Although a video-based course was not ideal, the professor put a ton of effort into the redesign and seems genuinely passionate about the topics which helped to keep me motivated and interested*

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

- much better attention to detail and precision skills
- abstract thinking

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 of the semester, we were having a lot of technological problems as a class. The Professor swiftly redesigned the entire course (he's extremely dedicated- he stayed up very late many nights) and made it work for the in person and remote students. Even when he had a migraine or was feeling ill from the vaccine, the quality of the education he provided us and accessibility he offered was immaculate. It is integral for students to not only watch videos, but also attend the synchronous sessions. The homework was so carefully designed to encourage self-learning and the whole course was just really well thought out in my opinion. It would have been better in person, but considering the circumstances, the course turned out to be significantly better than expected.

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 is phenomenal. I cannot say enough about how great of a professor and person he is. He showed us his cats, he always answered questions, checked in on us, and genuinely cared about each and every one of us. He also gave great feedback, fostered a sense of community in the class, and was always very honest with us. I have had Professors who have somewhat of a pretentious attitude, but Professor Alvarado is incredibly down to earth and truly is a top notch Professor.

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

8. Additional comments:

The only thing I would change is add more office hours. The Professor was already putting in overtime on this course (maybe too much) so it is understandable why we didn't have more hours, but, in an ideal world, I would have liked an additional hour in the beginning of the week then I think the course would be at its best possible state given the circumstances.

