

### **Rutgers University Midcourse Surveys**

Fall 2020

#### Echeverria Echeverria, Mariano - ME498

Multivariable Calc - 01:640:251:H1, H2, H3

Enrollment: 95 Responses Received: 63

#### **Instructor Questions**

The instructor Mariano Echeverria Echeverria was prepared for class and presents material in an organized manner.



Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Total Responses	Section Mean
0	0	1	11	51	63	4.79

## The instructor Mariano Echeverria Echeverria responds effectively to student comments and questions.



Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Total Responses	Section Mean
0	0	0	7	54	61	4.89

The instructor Mariano Echeverria Echeverria posted content that helped me understand the topics covered by the course.



Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Total Responses	Section Mean
0	0	2	12	49	63	4.75

#### The instructor Mariano Echeverria Echeverria has taught effectively in the course so far.



Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Total Responses	Section Mean
0	0	3	22	37	62	4.55

#### **Course Questions**

I was glad to take this course in an online format; for me it is the preferred format for this course.



Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Total Responses	Section Mean
13	13	24	9	3	62	2.61

#### What do you like most about this course?

#### Comments

The professor is extremely attentive to students' needs and concerns.

I like the fact that the professor provides relatable examples in physics and other math concepts that makes what we are learning alot easier to digest and comprehend. Furthermore, he extends concepts we are learning to applications outside of just what is

covered by the textbook and the syllabus which makes the class more interesting.

I like how energetic the instructors are while teaching, as well as how helpful they are.

It deals with interesting concepts with attractive conceptualizations.

The teachers. They are excited to teach and it shows.

I like the way that Prof. Echeverria presents the content during lectures and that there are always extra resources and plenty of opportunities for office hours. I also like that the grading of the course is very fair – the quizzes accurately reflect the material. The homework, recommended textbook problems, and reading assignments are not necessarily easy but after completing them I have a much better understand of the material. Overall very happy with this course so far.

I like the amount of examples given and the thoroughness of the instructors in going over examples.

Professor Echeverria is an extremely effective teacher and he is very good at answering students questions. He has great communication with the students as he always responds to emails promptly and makes sure to clarify and verify that his students understand him. During the confusion with the first midterm, Professor Echeverria made sure to communicate what he knew to the students and was supportive.

It is challenging but I learn

A lot of resources on canvas and Professor Echeverria is great

I like the content? it feels like a normal math class nothing stand out enough for me to like any specific thing.

I like that we have the ability to pause lecture whenever we need to and that we go at a nice pace where I don't feel the course is too fast.

The instructors are nice and good at keeping the material interesting, they do a good job of teaching the material

The teachers are very responsive to questions by students. Whenever anyone had a problem during a lecture, the teachers were able to respond promptly. Even outside of lectures, Dr. Echeverria usually responded to problems I had with the course very quickly compared to most other instructors I've ever had since high school, which made things much more convenient for me.

I think both of the professors are really nice and genuinely want to see us do well in the course.

Mariano is the best part of the course. He has provided so much material (practice problems, prerecorded lecture videos, in person lectures) for people to learn from. Additionally he seems to genuinely care about the class and his students.

I really appreciate that specific practice problems in the textbook are referenced to us. The selected problems have helped me learn the content better and more efficiently than I had during lectures (I prefer recitations or working alone in quiet to lectures in general, but they are still informative and I appreciate them).

I like that there are a lot of resources (pdf notes, videos, lecture recordings, extra problems, honors study guides) to study from, even if I don't make use of them. The lecture recaps sent out are helpful as well. I also like how the TA lets us bring problems to her to work through in recitation – it's much more productive and useful for me than spending recitation doing a workshop. I love the "optional problem" videos for the quizzes because they're really interesting and a nice way to get some extra points.

I liked

Professor Echeverria has truly been an outstanding professor. I strongly believe that he not only wants the best for all of his students, but he actively works to help each student succeed as much as they can. Professor Echeverria not only works hard so his students can succeed, he also works hard so that every student can succeed.

Professor Echeverria has provided ample resources for us to practice the material. He is very knowledgeable and provides a fun relief to Multivariable Calculus.

There is abundant resources for teaching self the material. Both instructors are also very competent and eager to help students. There is also a lot of communication from the instructors.

Professor Echeverria is absolutely wonderful in helping students understand the content and is a lovely human being.

The teachers are always there to help you and to make sure you understand the material.

The professor is very efficient and prompt with the material and student questions

Echeverria is really respectful and helpful both during and after class

i like math

Professor Echeverria. He is the best professor I have ever had—he's nice, understanding to students' problems, and is ALSO an amazing lecturer! Rutgers needs to hold onto him.

Mariano, you are doing great!! TI like that we can watch the recorded lectures as well as the youtube videos. I also like that there are bonus questions on the quizzes, it makes the quizzes much less stressful. Also, it's so helpful that a summary of each lecture is posted so I know what material was covered.

I enjoy both professor Echeverria and Tsipenyuk's teaching style; both professors are very enthusiastic about the content, which makes class more engaging. both are clear with their explanations.

Multiple midterms this semester puts little pressure on each individual exam which helps me cope mentally with anxiety and stress. I like the amount of resources including the additional youtube videos Professor Echeverria provides.

#### The professor

The professor

I like how they clarify confusing concepts are questions effectively.

The course is very informative and interesting

I like the pacing of this course in terms of the lectures.

Echeverria has put all the resources online in a very organized manner and has been very helpful with online difficulties

I wouldn't say that online is preferred but its a good class. The material is taught well, the recitations are nice, and the workload is manageable.

I like that all lectures are recorded and uploaded on canvas for my viewing convenience if I have some sort of scheduling issue or just want to go back to a specific time stamp in lecture that I found hard to follow live. Having extra videos posted and available as a resource has made learning easier for me as I can watch them at my own speed and rewind multiple times.

The extra credit projects.

I really love the content of the course that I am learning.

Not much I like about the course itself. I'm taking the course since it is necessary to do so. The professor makes the course more enjoyable though.

I like how the information for quizzes is laid out in advance so I have time to do hw problems and prepare

The inclusion of videos and recordings is really helpful. If I don't understand something, I can rewatch a lecture or watch one of Echeverria's YouTube videos

What do you think needs improvement and how should these improvements be made?

#### Comments

The grading system is quite complicated and was changed multiple times. The exam format was also complicated.

I think that there are too many questions during lectures which makes it difficult for me to understand a concept thoroughly since the questions tend to interrupt portions of the class with important concepts. I think it might be better if the end of class was reserved specifically for questions and that students not ask questions that aren't pressing during the middle of class.

I am fine with everything so far.

There could be more visualizations used to explain the many concepts involved.

The midterms need to be easier even though it is online, they are expecting us to make connections they never taught us to make.

The main issue is with the midterms but Prof. Echeverria is already well aware of the issues and is actively working to improve them.

I wish there were more reminders through Canvas for MathLab assignments as it is difficult to keep track of both sites separately.

I believe improvements should be made to how the math department as a whole communicates with its students and makes decisions. There was a lot of confusion with the release and failure of the first midterm and the math department took an extensive amount of time to respond to students (multivariable calculus never got an official email canceling the first midterm until about a week later while another calculus class received a notification while the test was still live). The communication from the 251 coordinator (loanna Mavrea) have also been lacking as they are often just redirects to other posts other professors have made or are numerous without meaningful content.

Additionally, the math departments initial decision to use ProtorTrack as testing software without any back up plan was inadequate and disappointing. The lack of leadership during the first midterm's incident caused much confusion and chaos.

The exam 1 was too hard and the study material did not prepare me enough for it.

The way exams work. The first midterm was ridiculously difficult and no partial credit was offered.

I think that the first exam should count for less of the final grade. Exams should have partial credit. Math is completely based on partial credit.

The single test we had so far was insane

The online environment makes communicating with classmates as well as testing hard.

The biggest thing I think that needs improvements are the tests. I never expected the questions to be exactly the same as on the homework, however, I was confused about how the structure of the exam question answers were because the structure was very different to what i was used to. The professor has provided preparation for the next one so I am very thankful as it will allow me to

understand the format better.

The testing process, its been having a bit of trouble

Recitation should move slower with a focus on fewer problems to understand concepts.

The administration of exams so far has not been smooth. For Proctortrack, it was not in the instructors' hands, but for the makeup midterm, the questions were unreasonably difficult compared to the expectations given by their lectures. I would suggest providing an opportunity for partial credit on questions by submitting work, and verifying that the exam difficulty is on par with what students expect based on what information they received during class.

I feel like sometimes lectures can get somewhat off topic and a little unorganized, but I don't really blame the professor for it. I think some people just ask random questions but since the professor is so nice he answers them even though they're kind of irrelevant. I would like it if he focused a little more on what he's teaching instead of kids asking questions that aren't very pertinent.

The exams were a mess. The first exam we took was a mess and I think everyone foresaw that happening. Then there was no partial credit on the second attempt at a first midterm. That being said I know the course coordinator is working on fixing these issues and finding between solutions.

My only isssue with the course so far has been the trouble we've been having with exams (e.g. proctortrack issues in september), I would have liked some more planning for such situations, but I am still content with the way they were dealt with.

The tests don't accurately assess understanding of the content, because if you add 2 to 2 and get 5, your final answer is messed up, but you could have done everything else right, and still get zero credit for the question. Maybe try a different platform that allows for work submission?

The exams are pretty awful, and I kind of wish we could just take it while being proctored over Zoom or something similar to that.

I believe that instructor Tsipenyuk needs to slow down during recitation problem solving because she has the problems already typed out but we still need to copy the work down. Additionally, she should slow down between solving steps to ensure no students are lost, rather than asking at the end.

Sometimes it can be hard to find specific material because there is so much on the canvas. Some organization could help. I would also like to also see more practice work in similar format to actual exams. One of the reasons I don't attend lecture much anymore is that often times the instructor gets sidetracked and I don't feel like there is enough focus on the actual material sometimes.

Maybe suggest readings of the textbooks to encourage it.

Nothing.

The TA seems very uncooperative

The class doesn't seem to structured, as when it comes to the honors-type problems, we really don't know what we need to know

nothing

The math department is making the exams impossible and being very incoherent, so that's not great.

Sometimes, during the lectures it is difficult to keep track of what is going one when the professor is being interrupted by irrelevant guestions. I think all questions should be saved for once the professor finishes his thought.

the BBB website tends to freeze or lag during recitiations, which causes a little confusions during class.

I need more help with materials on the quiz. We have practice questions but other then that I can't find guidance on how to get solutions.

I really wish it wasn't online haha

More exam style practice questions

I can't think of any specific improvements other than on campus lectures.

The midterm test was very difficult.

I think that the standard one midterm and one final would be better than multiple midterms. This could be balanced out by weekly quizzes.

I would find it helpful if we addressed more complex problem(s) in the lectures

The online format's biggest drawback is testing, the open book tests have lead to difficult questions which some do not prefer.

The exams given during this semester were probably the greatest cause of my stress this semester so far and I know that goes for several of my peers as well. While I understand deterring cheating is a goal, making the exam so radically different from any problems we've done in class or even in recitation is not fair to students especially in such a short time limit. Most, if not all, classes I'm taking allow open notes during online exams to alleviate stress on the students, however, based on the exam we've been given I don't think my notes would've been very helpful anyway. I would say to write exams that are reflective of the problems we are given in recitation/homework and in study guides, otherwise, you are dooming you're students to fail. Another suggestion I have is to avoid including questions with multiple parts that refer back to a previous answer. To me, this is unfair considering there is no partial credit available and this can cause students to lose points that they wouldn't be losing in person. I'm just very disappointed in how testing is being run coming from calculus 152 in which the exams were very difficult, but I was able to succeed and end with

an A.

N/A. The course is very effective.

Exams. The math department has been indecisive regarding the format of exams. Seems strange that after other departments had problems with ProctorTrack, the department still green–lit the proctored exams, only to scramble afterwards and making a much harder exam afterwards while deciding whether to half two midterms or four. I appreciate the transparency and letting students know the details as they come, but it was frustrating hearing information change by the day.

#### Nothing, I love both the professor and TA

Slower paced recitations. I understand that there is a lot of content that needs to be covered, but I spend the whole time copying stuff down and I don't understand why or how the formulas work. I'd like to slow down a bit so my brain can process what I'm copying down

#### Questions added by the Instructor

What have been your preferred sources for learning the material? For example, have you watched the youtube videos, attended lectures regularly, a combination of both, or something else?

# Comments I attend lectures regularly and refer to the youtube videos if I need extra help. YouTube videos and lectures I just find reading the textbook and attending some lectures helps me learn the best way, mostly because the textbook covers material step by step with derivations and the lectures give me the opportunity to reinforce those concepts and maybe ask questions at the end about concepts I do not understand. Attending lectures I have attended lectures

I have attended lectures, read the textbooks, as well as watched the professor's youtube videos to learn the material.

Both along with practice problems from the book.

Matlab and the lectures

Attended lectures regularly and watching YouTube videos when I need a more in-depth look at a specific topic.

The YouTube videos are especially helpful in filling in gaps from the lectures.

Lecture is helpful, but I primarily rely on the book, sometimes on the videos that the Professor posts on Canvas.

both

Lectures

Attending lectures regularly

YouTube videos

Both. I attend the lectures and watch videos when I need the extra help

A combination of textbook reading, youtube videos, and attending the lectures.

I do a combination of both. If I have time I watch videos ahead of time, or if I'm struggling with a topic I watch the video after lecture.

I watch the recordings of the lectures and also the youtube videos. I feel that the hw is great way for me to get some practice of the material in. I also used notes from the last time I self studied a little bit of Multi–variable calculus.

Attending lectures regularly and completing the assigned homework, going over the practice exams and problems provided

Lectures and Videos

I attend lectures regularly, and sometimes consult online resources.

I usually attend the lecture as a way to just get exposure to whatever the new material is, and then watch the reccomended youtube videos to really see problem examples and make sure I'm comfortable with the material.

I attend lectures and do the practice problems provide for the quizzes (and the homework).

Recitations and textbook problems

youtube videos and lectures

I mostly use the textbook, the pdf notes, and the study guides. I'm not great at paying attention to virtual lectures/sitting through videos, so I haven't been relying on them as much.

I attend the lectures regularly and then look at his notes/study guides for supplementary information.

Comments
I primarily read the textbook and attended lectures. Then if I was confused about anything I would watch the videos.
How I have learned is by taking down the pdf notes prior to class, going to lecture, completing the homework, and then watching the youtube videos afterward if I am still confused.
Usually attend lecture, then watch Youtube video on topic the next day. The myLab assignments are also very informative.
Lectures and the textbook.
online lecture videos.
Mariano's youtube videos
Lectures, although I plan to watch some of the youtube videos
combination of both
YouTube videos
I have attended lecture regularly. Also, Professor Echeverria gives us YouTube videos because he's the best professor of all time.
I do both. I attend the lectures, then rewatch the lectures later at 1.5 speed so I can write down anything I missed. Sometimes I'll watch the youtube videos if I don't understand something. I don't really read the textbook much.
lecture, outside material (the MIT link on canvas), and I recently started watching the youtube videos posted.
Regular lectures + textbook
A combination of attending every lecture and watching additional youtube videos
combination of both
both, prof esheverria provided us with so many resources that we hace basically total freedom to figure out how to deal with the class
Both
I mostly go over practice problems from Canvas and the textbook after attending the lectures and recitations. Sometimes I watch the YouTube videos when I am a bit confused. Overall there are several learning resources which I am very happy about.
Attending lectures regularly and completing the homework assignments on MyLab
I have attended most of the lectures, and have looked at the study guides posted.
The youtube videos make the lectures more segmented which I have started to prefer. The lectures can get sidetracted since Echeverria is very nice and will answer any question even if it is slightly distracting from the class. It isn't his fault, some students know what material is coming and predict what he is going to say which is likely annoying for him. Perhaps a good fix would be to allow time for questions.
I looked through the textbook and jotted down the necessary formulas. I haven't watched the yt videos, and I don't take notes in class. I do the mastering and reading problems to see if I'm on track, as well the quizzes and exam prep materials.
I mostly just watch the YouTube videos and make sure to complete the extra bookwork alongside the homework to confirm I understand the chapter.
MyLab assignments.
Textbook Mainly(MyLAB)
The book does a good job explaining the material. I watch lectures regularly to understand how certain problems are done. The internet has been a good source, explaining problems that originally I wouldn't have been able to solve.
Both as well as practice homework
I've done a combination of both. I attend the lectures, but if I don't understand something, I will watch the corresponding youtube video. If I still don't understand, then I will read the textbook or look online.