

## **Rutgers University Student Instructional Rating** Fall 2020

## Echeverria Echeverria, Mariano - ME498

Multivariable Calc - 01:640:251:31, 32, 33 Survey Form: \*Standard SIRS

Enrollment: 85 **Responses Received: 49** 

## Special University-wide Questions for Fall 2020

Due to the challenges created by the Covid-19 pandemic, three additional questions were added to the Fall 2020 survey.

Weight of responses: 1=SD (Strongly Disagree), 2=D (Disagree), 3=N (Neutral), 4=A (Agree), 5=SA (Strongly Agree), Resp=Number of Student Responses

Weighted Means: Section, Course, Level, Department

	SD	D	Ν	А	SA	Resp	Section	Course	Level	Dept
Given the content and level of the course, the course workload was manageable.	1	5	11	17	14	48	3.79	3.43	3.84	3.81
The course site used for this course, whether in Canvas, Sakai, or Blackboard, was well organized.	2	2	1	22	20	47	4.19	3.60	3.94	4.06
The instructions given for assignments, exams, quizzes, and other course activities were clear and easy to understand.	3	5	8	19	12	47	3.68	3.38	3.75	3.84

#### **University-wide Instructor Questions**

Weight of responses: 1=SD (Strongly Disagree), 2=D (Disagree), 3=N (Neutral), 4=A (Agree), 5=SA (Strongly Agree), Resp=Number of Student Responses

Weighted Means: Section, Course, Level, Department

	SD	D	Ν	А	SA	Resp	Section	Course	Level	Dept
The instructor Mariano Echeverria Echeverria was prepared for class and presented the material in an organized manner.	0	0	3	9	36	48	4.69	4.00	4.16	4.22
The instructor Mariano Echeverria Echeverria responded effectively to student comments and questions.	0	0	2	8	38	48	4.75	3.92	4.10	4.21
The instructor Mariano Echeverria Echeverria generated interest in the course material.	0	0	2	9	37	48	4.73	3.75	3.91	4.02
The instructor Mariano Echeverria Echeverria had a positive attitude toward assisting all students in understanding course material.	0	0	2	3	43	48	4.85	4.04	4.21	4.32
The instructor Mariano Echeverria Echeverria assigned grades fairly.	1	2	2	12	31	48	4.46	3.88	4.05	4.15
The instructional methods of Mariano Echeverria Echeverria encouraged student learning.	0	1	2	9	36	48	4.67	3.74	3.91	4.02

## **Teaching Effectiveness**

Weight of responses: 1=P (Poor), 2=F (Fair), 3=A (Average), 4=G (Good), 5=E (Excellent), Resp=Number of Student Responses Weighted Means: Section, Course, Level, Department

	Ρ	F	А	G	Е	Resp	Section	Course	Level	Dept
I rate the teaching effectiveness of the instructor Mariano Echeverria Echeverria as:	0	1	2	9	35	47	4.66	3.70	3.90	4.03

## **University-wide Course Questions**

Weight of responses: 1=SD (Strongly Disagree), 2=D (Disagree), 3=N (Neutral), 4=A (Agree), 5=SA (Strongly Agree), Resp=Number of Student Responses

Weighted Means: Section, Course, Level, Department

	SD	D	Ν	А	SA	Resp	Section	Course	Level	Dept
I learned a great deal in this course.	1	2	5	21	19	48	4.15	3.68	3.95	3.88
I had a strong prior interest in the subject matter and wanted to take this course.	0	6	8	21	13	48	3.85	3.65	3.66	3.37

#### **Course Quality**

Weight of responses: 1=P (Poor), 2=F (Fair), 3=A (Average), 4=G (Good), 5=E (Excellent), Resp=Number of Student Responses Weighted Means: Section, Course, Level, Department

	Ρ	F	А	G	Е	Resp	Section	Course	Level	Dept
I rate the overall quality of the course as:	6	2	10	16	14	48	3.63	3.11	3.62	3.66

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

These comments are intended for all instructors.

Comments
Both instructors are responsible. I really appreciate your help and support. Both of you!
Mariano's lectures and his recommended physics videos
Professor Echeverria was organize din his teaching and was very effective. He provided tons of material in order for his students to better grasps concepts and has made Calc 3 manageable even though it was online.
I like my my professor and TA. Both did an excellent job answering questions and explaining concepts. Both also responded to emails very quickly making communication easy.
This course was definitely organized very well, thanks to Professor Echeverria, who provided us with all the information necessary. I also find the topics fairly interesting.
I loved the professor who was very organized, attentive, and accommodating.
The difficulty of the material presented by the instructors. It wasn't terribly hard, just hard enough where you have to think
There is not much I like about this course since its just Calculus not much interesting other than learning about numbers but the Extra Credit videos were interesting.
I like my professor and the interest for Calc 3 he showed beforehand and his motivation for all students, no matter which professor they are from.
The professor.
My professor and how engaging he was throughout the semester.
The attitude of the professor, the learning material, the structure, the difficulty, all of which made an EXCELLENT time for calculus 3.
quizzes and recitation
Professor Mariano
I loved Mariano's teaching and Alessandro's help. Both were one of the best math instructors I have had thus far.
can see videos again and again if I did not understand the lecture.
Quizzes were designed in a way that actually help students to learn and understand the material, as well as the homework.
mariano
The students I collaborated with had the same interests that I had, a really accomodating professor, and understanding the intersection between calculus and physics.
time given for different assignments
The professor and TA are both engaging, answers questions without trouble.
The visualization of math

## If you were teaching this course, what would you do differently?

These comments are intended for all instructors.

#### Comments

I will be doing more examples that are similar to problems of midterms during lectures

The course coordinator, Maverea needs to step down. The beginning of the semester was a mess and it de-motivated me

More problems on the midterm with more time can cover more topics and gives students the ability to make up their grade if they are not too good in one area.

I would NOT have as many exams in the course, especially so close to the end of the semester. The exams were so frequent that

#### Comments

students became more and more stressed throughout the semester. The final midterm was only one week before the final exam which does not seem fair.

If I were teaching the course, I would present the students with certain expectations throughout the course. Taking this class, I felt I did not clearly understand what I was expected to know and the level of difficulty of the course. I used many outside resources, especially Professor Leonard, during my studies, although I felt the exams were much harder than the material we learned in class, especially for the first midterm exam. Therefore, I feel as though it would be very helpful to give more practice that is similar to exam difficulty. After Professor Echeverria began organizing the exams, it was much better, since he provided us with a practice exam for each midterm exam which helped me see whether I understood the material. However, I do think a review sheet that is similar to the exam difficulty would be helpful as well, since I felt the review sheets given did not help me that much.

This course was extremely discouraging because of the formatting of the exams. I genuinely enjoy all of my math courses I have taken thus far at Rutgers and I enjoyed the material I learned in this course. HOWEVER, the formatting of the exams were absolutely ridiculous. We had four questions with only 50 minutes where each question takes at least 20 minutes to do. The questions on the exams are NOTHING like what we learn in class or the homework assignments that take hours to complete. They also resemble nothing like that of the textbook questions. I did every single homework assignment, textbook questions for each section, and practice exam(which was very easy compared to the actual exam) and still felt unprepared for ALL of the exams. Also, we were told the questions on the practice exam were going to be similar to the questions on the actual exam. However, the difficulty of the actual exam questions were exponentially greater compared to the practice exam questions.

If I was teaching this course, I WOULD MAKE THE EXAMS DOABLE AND RESEMBLE WHAT THE COURSE ACTUALLY TEACHES. The exams were extremely discouraging and made me lose interest in a subject I truly enjoy.

align the exam material with the material used by the professors and instructors

I would not change anything the way they been teaching.

I think that we should not have quizzes right after exams, and there were too many exams. Also, the material taught in lecture was confusing and did not help when doing the homework. I had to relearn a lot of material on my own.

The exams were challenging and sometimes consisted of problems we were not familiar with. I would as a professor reveal those trick questions we could encounter in a separate zoom call so students can be more familiarized.

For exams, I would definitely extend the time beyond 50 minutes, or make the questions more manageable within the given time frame. There were a few exams in which there was a lot of work for each of the questions and the time allotted did not seem fit for the amount of work.

N/A

I would provide more office hour times to students, as well as recording those office hours for those who aren't able to make it.

Make exams that dont require exact answers so there is ability to earn more credit.

Less exams

Less exams, less weight on the exams, and make sure the exam works before giving it to the students

I would make the exams more reflective of the material that was taught and I wish I had more time to complete them considering how much of my grade they were worth. I understand that cheating can happen but it happens regardless of the testing environment. As someone who has test anxiety, the fill in the blanks without partial credit did not bode well for me. This is also in no way shape or form Mariano's fault.

make some discussions between students so that can make sure they understand all the questions.

Dramatically change the way exams are administered, mainly increasing the number of questions on each one well above 4 so that majority of the overall course grade is not based on such a small number of questions.

make exam questions more representative of what we were learning

I would give the students more time for the questions. None of the midterms gave the students enough time to finish all of the questions and checking them over, so if someone was stuck on a question for even 3 minutes chances are they will not be able to finish the entire midterm.

Make all of the exams have an upload portion from the start.

less exams and better covering of topics

I think Mariano should have another office hour timing. Just the one on Monday is good, but I think another one potentially at the end of the week would be more helpful.

# In what ways, if any, has this course or the instructor Mariano Echeverria Echeverria encouraged your intellectual growth and progress?

These comments are unique to the instructor Mariano Echeverria Echeverria.

#### Comments

Professor Echeverria is a good person. He provides all the information about this course. He even uploaded Youtube videos of all chapters. Very responsible and kind

YEAHHH

Professor Echeverria provided a plethora of additional tools for our learning. He provided videos, extra problems, additional information on topics and wanted students to succeed.

Professor Echeverria has definitely been one of the best professors I've had. He made me excited to go to class, as well as sparked interest in this subject. He presented the material in such a way that was easy to understand and made it seem less intimidating, especially when first transitioning from 2D to 3D. Professor Echeverria was also very willing to answer questions, responding to emails in a timely manner and actively replying to questions in the comments during live lectures. His office hours were also very helpful, and he was very willing to schedule extra office hours during the week and the day of each midterm exam. He also made me feel very comfortable in his class and I was able to ask him any questions I had and would always receive a response. His transition to remote learning was also very good, as he was very organized with his Canvas Site and his lectures. He also provided us with extra resources (pre–recorded videos, summaries, and outside resources) which were very helpful.

This professor was amazing. He was very attentive, good at answering questions and class was engaging. He was also very accommodating with the assignments and gave us fair quizzes. He is a great professor.

N/A

He was able to make the class interesting by talking about real–world examples. He is helpful on questions regarding homework. However more questions related to tests will be helpful

His great kindness and motivation for his students has encouraged my intellectual growth and progress.

He is by far one of the best teachers I've had at Rutgers. His additional videos and his incredible enthusiasm for teaching made Calc 3 a surprisingly enjoyable experience.

Professor Echeverria encourages intellectual progress as he effectively responds to questions regarding the material and course in a timely manner. He taught the course material in a great way and offered visuals during class that helped support the concepts of what he was teaching, which was very beneficial given the online platform. All in all, a great professor who teaches multivariable calculus well.

Professor Echeverria was my favorite professor this semester due to the fact that he really wanted his students to be successful. He made fun, short youtube videos to help us further understand each topic we went over in class. He also added fun videos to help us learn about other topics related to math concepts.

He encourages an environment that is 'student can ask any question' friendly, as well as making the content seem digestible and easy to understand!

One of the most caring and passionate professors I've ever had.

Mariano was such an amazing professor- he was really passionate about calc and just really wanted to help. I always looked forward to class and I wish I got to experience the class in person, as it would definitely have been much more fun. He incorporated interesting examples to explain concepts that would have otherwise been vague and boring. Overall amazing, kind, and knowledgeable. 10/10 recommend

He is very kind and he listened to his students concerns. He definitely made me love math.

Multivariable Calculus was one of the only courses that I actually maintained my interest in this semester. Prof. Mariano Echeverria really cares about the students and wants them to learn, and it helps that he connects the concepts of Calculus III into real–world applications.

He is a very nice professor! Always reply my email on time, help me solve problems when I meet Internet problems while taking tests.

Allowed me to understand a great deal of multivariable calculus.

made me really engage with what we learning

Provided additional office hours before the exam and an alternate time for international students to take their exams.

very good teacher who connects with the students and makes the learning bearable in a time where learning is not one forefront of peoples minds

He is kind and knows how to teach online. His video assignments are cool.

#### Other comments or suggestions:

These comments are intended for all instructors.

#### Comments

I am so thankful. Thank you for the support from both instructors during this hard time.

I felt like Mariano was thrown under the bus.

Best professor I have had at Rutgers!

I strongly recommend lowering the number of midterm exams allowing students to have more time to study.

CHANGE THE EXAMS.

don't make the exams unbearably hard

N/A

none!

if any student is reading this beyond fall 2020, I can honestly say TAKE THE CALC 3 WITH Prof. Mariano Echeverria!! Hands down one of THE BEST professors I had and I ain't capping when I say this! He loves interacting with his students, takes great care into making sure students understand the material, and the material/structure of the class makes it easy for any student to do well in his class. If anyone has ANY DOUBTS on who to pick for Multivariable Calculus, stop right here and FIND HIS CLASS ASAP!!!!!!! (PS: he didn't pay me to type this, I am genuinely writing this so someone else can be blessed by his great class)

too many exams. Teaching is way too proof based. Need to learn how to do problems instead of teaching myself.

44% of your grade shouldn't be based on 16 mostly difficult questions.

no

none

exam questions from exam to exam were all over the place

The course was well thought out and planned nicely HOWEVER, the midterms were nothing like the questions we did in class. The midterms were necessarily hard and they never were the same level as the in class examples OR the practice exams. So I would definitely want more time for the midterms.

If there was required attendance to take quizzes and attend lectures for the futures, given that some international students cannot attend effectively in late hours, have them submit a PDF of their notes as proof that they have watched the lectures on time and took the quizzes so it serves as more of an incentive to get everything done on time in preparation for exams.

Despite the difficulty of the exam, this is my favorite class.

## **Questions added for: \*Standard SIRS**

Weighted Means: Section, Course, Level, Department

#### The lecturer posted content that helped me understand the topics covered in the online lectures.



Section	Course	Level	Dept
4.44	3.68	3.91	3.97

The recitation/workshop instructor posted content that helped me understand the topics covered in the online recitations/workshops.



Section	Course	Level	Dept
3.93	3.53	3.75	3.85

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



Section	Course	Level	Dept
2.94	2.43	2.75	2.78

## **Questions Chosen by Instructor**

#### I would recommend this course to other students.



#### My experience in this course has encouraged me to continue taking courses in this subject.



#### The course was intellectually stimulating.



## How often did you use the recommended texts?

Hardly Ever (0) 0.00 Rarely (1) 0 Occasionally (11) Frequently (10) Always (8) [ Total (30) ] 0	0% 3.33% 36.67% 33.33% 26.67% 50%	100%
Statistics		Value
Response Count		30
Mean		3.83
Median		4.00

# Course assignments (e.g. quizzes, tests, essay topics, or midterm exams) accurately reflected material taught.



#### The instructional technologies were effective.



#### The classroom environment supported my learning.

1 Strongly Disagree (3) 2 Disagree (3) 3 Neutral (10) 4 Agree (5) 5 Strongly Agree (8) [ Total (29) ]	10.34% 10.34% 17.24%	34.48% 27.59% 50	%	100%
Statistics				Value
Response Count				29
Mean				3.41
Median				3.00

#### Class discussions were helpful.



## The instructor Mariano Echeverria Echeverria used real world examples to explain course content.



#### I learned as much in the remote learning environment as in the face-to-face environment.

Strongly Disagree (6) Disagree (10) Neutral (4) Agree (4) Strongly Agree (6) [ Total (30) ]	- 13.33% 13.33% 20.00	33.33%	
	0	50%	100%
Statistics			Value
Response Count			30
Mean			2.80
Median			2.00

#### What were some of the positive aspects of taking this course online?

#### Comments

Professor Echeverria did everything he could to provide us material to help us better understand the course material.

being able to go back and rewatch lecture is really helpful and should honestly have always been an option

I feel as though taking this course online definitely helped me learn more than I would have previously, since I had to find resources which I most likely would not have found if we were in person. I definitely like having pre–recorded lectures and many resources, as well as the opportunity to ask many questions during office hours, and being able to attend office hours and lectures easily. I also feel it was easier to ask questions during live lectures than it would be if we were being taught in person.

The professor was very encouraging and provided a lot of resources to learn the material.

the availability to reference record lectures whenever I needed, as well as youtube videos created by the instructor

I am able to do questions much better in a person environment.

The professor.

The ability of rewatching the lectures for specific parts that were missed was an advantage of taking this course online.

Having access to rewatch class lectures whenever I wanted to.

nothing

Flexibility since every lecture was recorded

The instructors, the assignments, and the quizzes were very useful and I enjoyed them.

Can watch the lecture records many times which can be helpful.

n/a

#### What were some of the negative aspects of taking this course online?

#### Comments

It was hard to learn online and the exams were horrible at first.

i found it easier to not attend lecture

I definitely think that the main negative aspect of taking this class remotely is the lack of face-to-face contact with the professor, making the questions and class very impersonal. I also think that the exams only having two questions for which we could have received partial credit was very difficult, since it is very easy to make a simple mistake in this class when making calculations or even typing in the answer.

THE EXAMS.

the difficulty of the questions on the exam in an attempt to make them "cheat-proof"

Having to deal with proctortrack which failed during the test day forcing everyone to do a retake.

The chat being flooded with jokes between students would be distracting from the lecture at times.

Having extremely difficult tests that didn't really measure my abilities or represent the practice tests by making it hard, stressful, and very time limited, because of the math departments fear of students cheating.

it sucked

Terrible servers that caused more stress and not learning as much

Having the class online made it harder to ask questions in class and harder to maintain focus as staring at a screen for 80 minutes straight is difficult and tiring.

The midterm exams were awful and I feel like the amount of studying and effort I put into the course went down the drain after taking most of them.

The original coordinator for this course changed the syllabus multiple times after the add/drop date, which put almost all of the students taking the course at a severe disadvantage. In addition, the exams were increasingly difficult compared to the exams when the math courses were in-person. While Prof. Echeverria effectively taught us the material we needed to know for the exams, the exams unfortunately did not reflect the material we learned in the class (or even in the textbook) at all. Even with the help of computing algebraic systems like WolframAlpha (which many students in the course most likely used), students still scored very low as the exam questions were near impossible. Not only that, there is simply not enough time to take the exams in the online format; it is quite outrageous that the in-person allotted 1 hour and 20 minute time limit was not granted for the online exams this semester. There is no doubt that Prof. Echeverria is a great professor and a great person, but the Rutgers mathematics department really needs to get its act together before it falls apart in the future.

I need to stay up late to finish my quiz in the recitation section because I stay in China right now.

did not completely understand topics and online made it tougher to clear up ideas