



# MATH 16210 22 - Honors Calculus II (IBL) - Instructor(s): Sarah N Ziesler

Project Title: **College Course Feedback - Winter 2024**

Number Enrolled: **13**

Number of Responses: **10**

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## Report Comments

Opinions expressed in these evaluations are those of students enrolled in the specific course and do not represent the University.

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Creation Date: **Thursday, March 28, 2024**

## What are the most important things that you learned in this course? Please reflect on the knowledge and skills you gained.

Comments
How to write a full, notationally correct proof. Much deeper understanding of how the real numbers are constructed, how we derive arithmetic properties from the real numbers, how we characterize limits and basic calculus. Improved mathematical reasoning.
How to prove and gaining a skill of using what I know to build what I need to know
Field axioms, Intervals, Connectedness, Continuity, Compactness, Limits
I have continued to learn how to write proofs clearly and correctly, a fascinating and worthwhile skill for a math major! I am also beginning to apply these skills to higher level concepts, such as calculus.
density, compactness, limits and differentiation
Dedekind cuts, compactness, limit, and proof in general
Constructing the reals and different properties that follow.
Real numbers, compactness, continuity, limits, a bit of derivatives. Also, I better understood how quantifiers worked, which greatly improved my proofing skills.
Improved my ability to formulate arguments. I'm a lot better at math.
Improved my proof-writing skills, learned about Dedekind cuts, field axioms, intervals, limits, continuity (both epsilon-delta and set definitions), and derivatives.

## Describe how aspects of this course (lectures, discussions, labs, assignments, etc.) contributed to your learning.

Comments
Being able to ask questions and interact with the presenter's proof in class was really helpful. Office hours with both Noah and Professor Ziesler were incredibly helpful and allowed me to understand both the logical reasoning I was supposed to use and the actual mathematical concepts much better.
Office hours
In-class proofs and discussions were super helpful
Class time--able to collaborate with peers, learning from and sharing ideas with them! Class is a supportive and engaging way to learn how to approach new challenges. Office hours-- a perfect time to ask any questions and further your learning! Office hours are often an important part of coming to class well prepared.
The IBL format and journal (writing up proofs formally) really push me to understand every single concept. The first two groupwork in this quarter is quite challenging, but also fun to work with.
Class was always beneficial and the discussions that follow from it. Office hours served to be very helpful and both Prof. Ziesler and Noah took the time to answer the questions clearly.
Office hours were most helpful. Whenever there was a proof I couldn't figure out, the presentations in class were sometimes too fast-paced for me, so office hours was where I truly understood concepts.
Office hours are great.
Writing proofs, seeing proofs presented and presenting them were all equally helpful. Office hours were also very useful.

## Please respond to the following:

	Mean	Median	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
This course challenged me intellectually.	4.90	5.00	0.00%	0.00%	0.00%	10.00%	90.00%
I understood the purpose of this course and what I was expected to gain from it.	5.00	5.00	0.00%	0.00%	0.00%	0.00%	100.00%
I understood the standards for success on assignments.	4.70	5.00	0.00%	0.00%	0.00%	30.00%	70.00%
Class time enhanced my ability to succeed in graded assignments.	4.90	5.00	0.00%	0.00%	0.00%	10.00%	90.00%
I received feedback on my performance that helped me improve my subsequent work.	5.00	5.00	0.00%	0.00%	0.00%	0.00%	100.00%
My work was evaluated fairly.	4.90	5.00	0.00%	0.00%	0.00%	10.00%	90.00%
I felt respected in this class.	4.90	5.00	0.00%	0.00%	0.00%	10.00%	90.00%
Overall, this was an excellent course.	4.90	5.00	0.00%	0.00%	0.00%	10.00%	90.00%

## Additional comments about the course:

Comments
Calc IBL is incredible!! Hands down my favorite class this quarter and this year so far. I've learned so so much about math and logic. Both Noah and Professor Ziesler are incredible and very invested in our learning. Take this class!!
IBL is an amazing experience, especially for anyone who may be interested in math! This course is a great introduction to college-level math, since it is a welcoming and low-stakes environment to learn in and you are actively involved in your learning.
Ziesler is very experienced in teaching. She is especially good at guiding students to approach the answer rather than immediately giving out the solution. This is my favorite class so far and really stimulates my interest in math.
I love Professor Ziesler!

## I would recommend this course to:

	No	Yes
Highly-motivated and well-prepared students	0.00%	100.00%
Anyone interested in the topic	20.00%	80.00%

## Thinking about your time in the class, what aspect of the instructor's teaching contributed most to your learning?

Comments
Professor Ziesler allowed class discussion about proofs to be free-form, but still ensured that any important points that we missed were touched on and corrected, if needed. She allowed students to lead the presentations of the proofs, but still made sure to step in if anyone went in the wrong direction. She also actively engaged with students' ideas about the proofs rather than dismissing them or encouraging a single approach.
n/a
Professor Ziesler is a great source of guidance and useful feedback! She is always kind and supportive in her comments, and she is happy to answer questions and speak to the significance/context of the material.
OH everyday and being extremely attentive to our presentations in class. Professor Ziesler is an amazing teacher who is extremely invested in helping you improve.
Office hours
Critiquing proofs, guiding the class to finding a particular issue with a presented proof, etc.
During class, Professor Ziesler creates open atmosphere so I felt I could freely ask any question. She also puts a lot of care in her comments on the proofs presented during class, which helped me understand the standards for success. Also, she was very helpful outside class as she would host office hours everyday.
Clarifying common proof mistakes.

## What could the instructor modify to help you learn more?

Comments
I can't think of anything she could do better.
she was amazing!
Nothing
I can't think of anything right now, this class is amazing!
Nothing, everything is great
More mini-lectures for the difficult topics.
For the group work, I feel there should be more time between critique and final submission deadlines. Although this is highly dependent on the group members, I found that if group members finished critiquing right before the deadline, it became stressful for me to edit the proof that was due the same day. Also, in my experience, critiques were usually done on the rudimentary versions of the proofs so most of the feedback was about the proof's logic. After editing, my group would do another round of critiquing where we would find more things to fix about the proof, such as the notation or organization. But if the group members' schedules didn't align, by that time it was too late to ask for clarification or make big changes.
As for in-class presentations, if there was a flaw in the proof I wish the professor gave a more detailed explanation on how to fix them. For example, I found the TA's presentation on compactness to be quite handwavey, and one of the proofs was partly incorrect. I was left with a non-solid understanding of the concept while struggling to correct the proof, which led to me falling behind in the class for a bit.
Nothing. Sarah Ziesler is amazing.

## The Instructor . . .

	Mean	Median	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
Organized the course clearly.	5.00	5.00	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%
Presented lectures that enhanced your understanding.	5.00	5.00	0.00%	0.00%	0.00%	0.00%	44.44%	55.56%
Facilitated discussions that were engaging and useful.	5.00	5.00	0.00%	0.00%	0.00%	0.00%	88.89%	11.11%
Stimulated your interest in the core ideas of the course.	4.89	5.00	0.00%	0.00%	0.00%	11.11%	88.89%	0.00%
Challenged you to learn.	5.00	5.00	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%
Helped you gain significant learning from the course content.	5.00	5.00	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%
Was available and helpful outside of class.	5.00	5.00	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%
Motivated you to think independently.	5.00	5.00	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%
Worked to create an inclusive and welcoming learning environment.	5.00	5.00	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%
Overall, this instructor made a significant contribution to your learning.	5.00	5.00	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%

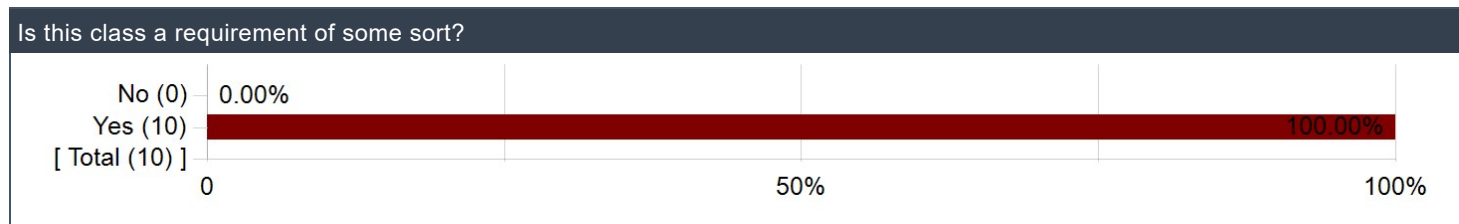
Please include the name of the TA/CA/Intern you are evaluating. What aspects of the TA's teaching contributed most to your learning? What could the TA modify to help you learn more? Please include any additional feedback for the TA/CA/Intern.

Comments
Noah Caplinger! Noah is awesome – he's funny and engaging in office hours, and is very good at presenting complex ideas in ways that are easy to understand. He'll give hints on proofs without giving away the solution, and helps us explore math outside the scope of the course. He's great at explaining things in an intuitive manner, and then connecting that intuition to the actual math.
Noah
Noah Caplinger did a great job teaching us how to approach proofs
Noah Caplinger– it is helpful that Noah is always available for office hours, and happy to answer any questions about assignments or math in general! Noah's grading is also very clear and fair.
Noah Caplinger, he was wonderful!! I really enjoyed his "lecture" on compactness, and he always offers us with intuition and guiding us if we get stuck during our presentations.
Noah
Noah led problem sessions very nicely and answered questions clearly. Noah is a great TA.
The TA's grading was quite detailed and useful in helping my proofs become more rigorous. Though, I usually missed minor details, so I wish the standards for a complete proof were made clearer before the assignments were due.
Noah 10/10
Noah is the absolute best. He explains concepts very clearly, his office hours are entertaining, and he is just overall awesome.

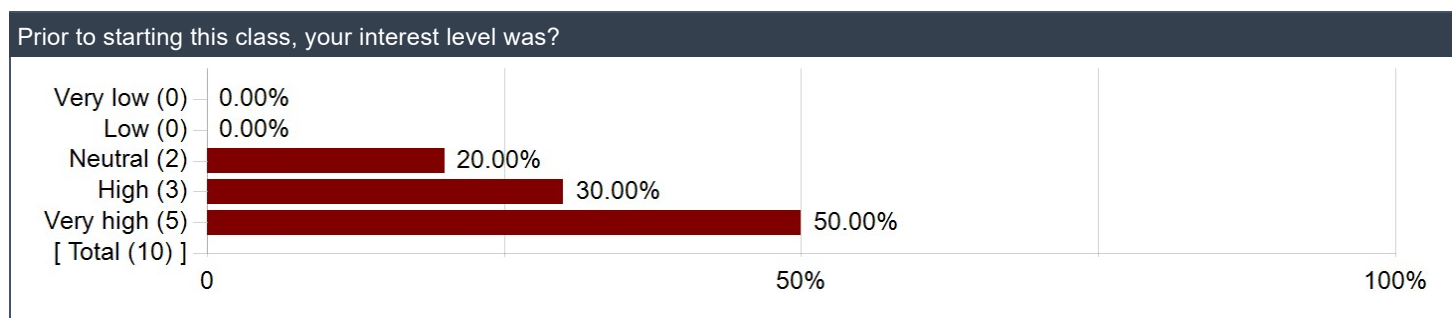
### The TA/CA or Intern. . .

	Mean	Median	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
Facilitated discussions that supported your learning.	4.80	5.00	0.00%	0.00%	0.00%	20.00%	80.00%	0.00%
Gave you useful feedback on your work.	4.90	5.00	0.00%	0.00%	0.00%	10.00%	90.00%	0.00%
Stimulated your interest in the core ideas of the class.	4.89	5.00	0.00%	0.00%	0.00%	10.00%	80.00%	10.00%
Challenged you to learn.	4.89	5.00	0.00%	0.00%	0.00%	10.00%	80.00%	10.00%
Helped you succeed in the class.	4.89	5.00	0.00%	0.00%	0.00%	10.00%	80.00%	10.00%
Was available and helpful outside of class.	4.80	5.00	0.00%	0.00%	10.00%	0.00%	90.00%	0.00%
Overall, this individual made a significant contribution to your learning.	4.78	5.00	0.00%	0.00%	0.00%	20.00%	70.00%	10.00%

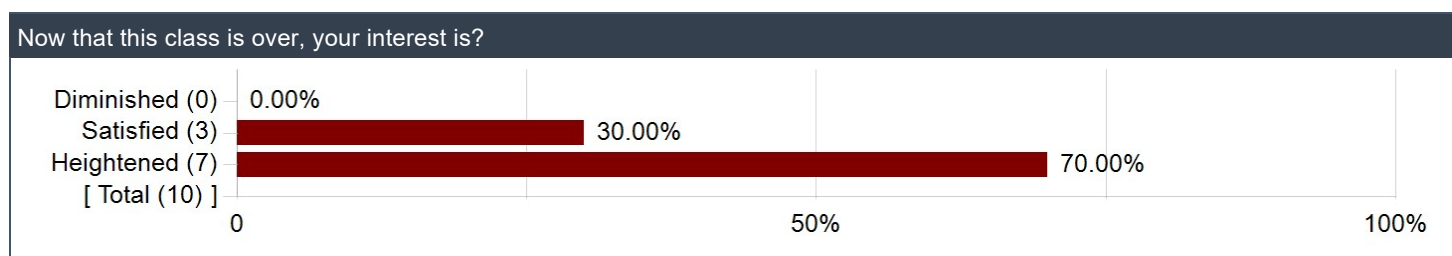
### Is this class a requirement of some sort?



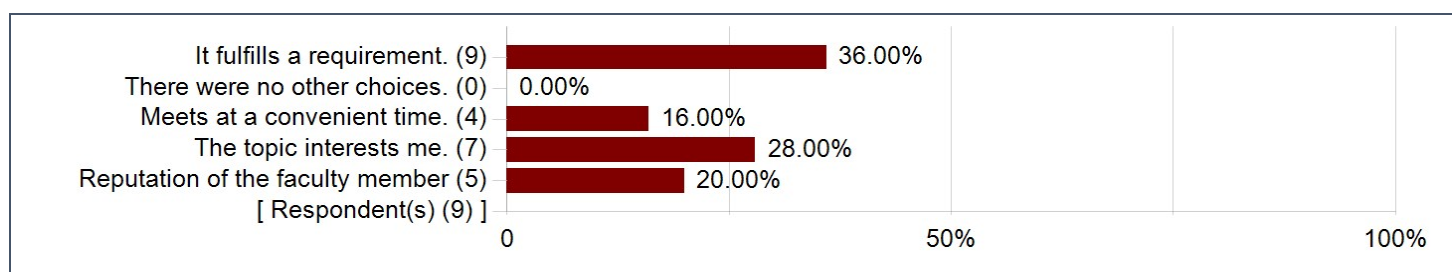
## Prior to starting this class, your interest level was?



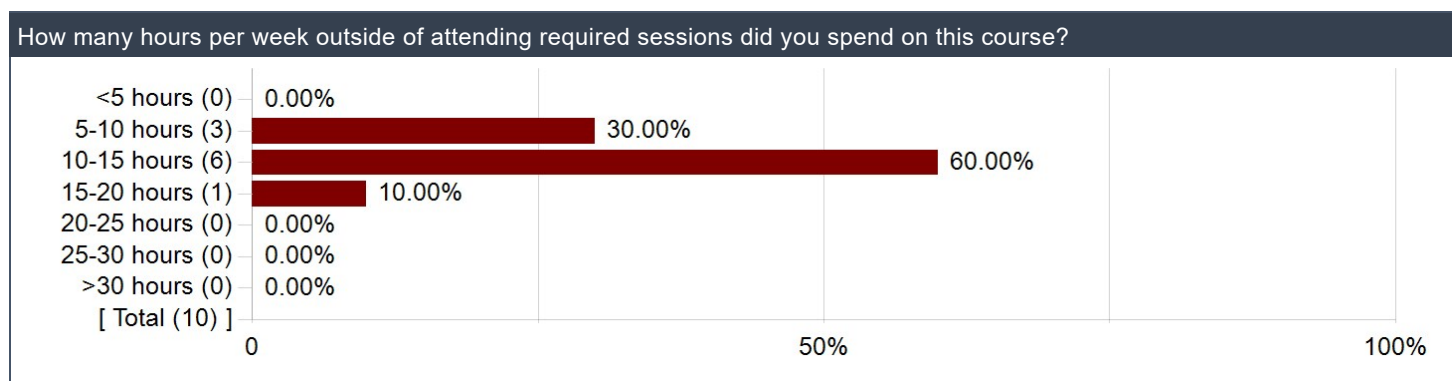
## Now that this class is over, your interest is?



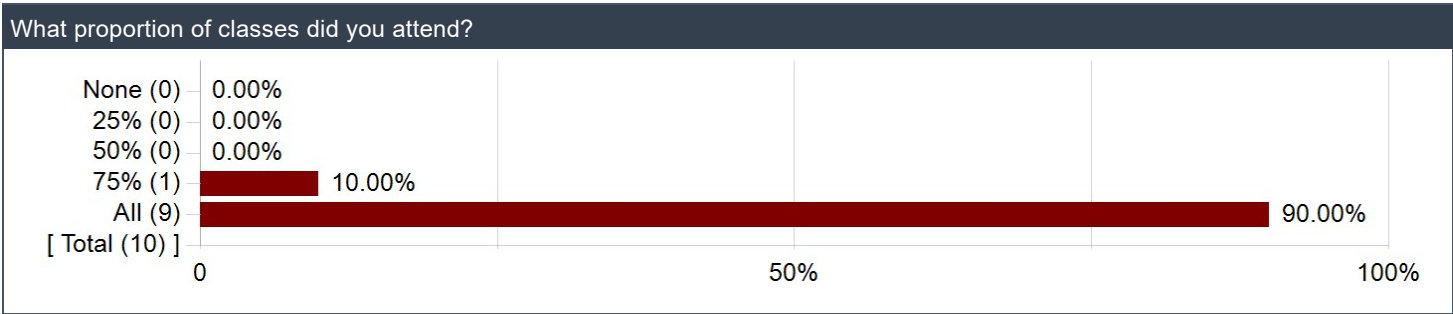
## Why did you choose to take this course? (Select all that apply)



## How many hours per week outside of attending required sessions did you spend on this course?



What proportion of classes did you attend?



Please comment on the level of difficulty of the course relative to your background and experience.

Comments
Somewhat harder than last quarter, mostly since the mathematical concepts we're dealing with are more complex. Still manageable.
16110 prepared me well for 16210, and so this course was challenging but accessible. Group work was a step up, but with the help of Professor Ziesler my peers and I were able to attempt even these fascinating proofs!
No prior proof experience in high school, but the IBL sequence feels reasonable and doable.
The class was difficult yet manageable after taking 161 IBL.