

Instructor: Christensen, Jens

Course: Real Analysis II

5 surveys / 5 enrolled in MATH 424 A (TR 0830)

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Student: 1

Reason: Elective within major or minor

Reason: Interest in the course material

Effort: I typically spend eight hours per week outside classes on this course.

Understanding & Appreciation: Through this course I have learned the 'advanced fundamentals' on which a more robust theory of calculus was built.

Intellectual Growth: Materials in this course will also directly contribute to my further study in a different field.

Quality: Prof. Christensen handles questions rigorously but also hints on the intuition that facilitates understanding of the materials.

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Student: 2

Reason: Elective within major or minor

Reason: Reputation of the instructor

Reason: Interest in the course material

Effort: About 6-7hrs/week outside of class, usually finishing weekly problem sets/take home exams.

Understanding & Appreciation: Lebesgue integration is a very useful tool to broaden our capacity to understand more about the real numbers and functions on them. This course has helped me understand both the utility of Lebesgue integration and the historical context.

Intellectual Growth: As with most math classes, to come up with coherent and correct proofs often requires in-depth thinking about the problems at hand, and those critical thinking skills translates well into life. I feel that my level of critical thinking has gone up a notch after this class.

Quality: Prof. Christensen did a wonderful job in conveying the course material, and had us participate in proofs of some of the important theorems on Lebesgue integration, which was very helpful in understanding what to do when confronted by similar problems. He is also extremely accessible and understanding of your needs, which I very much appreciate.

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Student: 3

Reason: Elective within major or minor

Additional Reason(s): I took this course to further my understanding of real analysis and learn more about theoretical mathematics to prepare for further study in the subject

Effort: Doing weekly homework, completing exams and midterm, read the textbook, summarizing important theories.

Understanding & Appreciation: This course helped me grasp a better understanding of measure theory and Lebesgue integral, which are important topics in modern analysis. It also introduced me to the Fourier transform as well as other tools in mathematical analysis.

Intellectual Growth: The course was important in allowing me to solve more difficult math problems and apply theories learnt in class to solve these questions.

Quality: The lectures help me to understand several theorems presented in the textbook by providing the proofs and the rationale behind these theorems. However sometimes the proofs are a bit unclear and the instructor needs to pause to clarify them.

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Student: 4

Reason: Major or minor requirement

Effort: This was one of the most challenging courses I have taken in Colgate so far. I put about 10-15 hours per week on this course.

Understanding & Appreciation: It has enabled me to see a different aspect of the subject than I was used to before.

Intellectual Growth: I believe this was the course that significantly improved my approach towards proofs.

Quality: Professor Christensen is one of the best professors I have had at Colgate. He explains course material very clearly, despite the difficulty of this course. He is able to attentively gauge how closely the students are following in his class and adjusts his pace accordingly. He is clear in what he expects from you and helps you in every way possible. Always very approachable and eager to help.

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Student: 5

Reason: Major or minor requirement

Reason: Elective within major or minor

Reason: Reputation of the instructor

Reason: Interest in the course material

Additional Reason(s): Reals reignited my interest in theoretical math, and I wanted to see where this field goes. This course is also especially important for grad school, and I am happy that it is offered.

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Effort: Reals II requires consistent effort to really understand the material. Beyond assignments and tests, I found myself reading the text book and looking more into the field to really learn more. The work was never unreasonable, and I never felt overwhelmed, but I was consistently challenged.

Understanding & Appreciation: Measure theory is something I had never given much thought to before this course. I had had no experience with multi dimensional mathematics beyond linear algebra. Having a rigorous background for many of the ideas used in applied mathematics is also very valuable.

Intellectual Growth: This course did more for my mathematical intuition than any other course I've taken. Abstract set theory is really hard, but really useful in understanding mathematics in general.

Quality: Professor Christensen is bar none one of the best professors I have had at Colgate. His passion and interest in the material really shines through in every class. He was always there to help me, respecting the effort I put into the class. His in class lectures are incredibly interesting, and I actually looked forward to going to an 8:30. Beyond this class, he is also invested in the future success of his students, which I think is really valuable and part of why I have so enjoyed math at Colgate. His ability to connect ideas between this course and other fields in mathematics, such as group theory and topology, was also incredibly helpful and interesting. Everyone always told me that real analysis was not fun, and after taking professor Christensen's courses, I could not disagree more.

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