CSE 191LR (000): Intro Discrete Structures

Faculty

RM Russ

Spring 2016

294	76	25.85%
Students Enrolled	Students Responded	Response Rate

Quantitative | **Qualitative** | **Segment Comparison**

Due to a technical error not all students were presented with all questions on the evaluation. Unequal N's may be expected between core course and instructor related questions on this report.

Please comment on the elements of the course you found particularly effective. -

- The zyBook really helped out for the first exam. I wish it was implemented throughout the whole course because it would be easier to learn the material that way.
- Professor Miller is funny, engaging, and loves what he does. He is a perfect fit for this course because he makes things easy to understand.
- Lecture material was extremely clear, no excuse not to get an A if you went to class. If you didn't go to lecture this class would probably be pretty difficult.
- All good.
- very clear explanations
- -
- Lecture is very useful and informative. The zybooks is useful but its only used for the first part of the class it should be used throughout.
- The readings and diagrams provided by the instructor were very useful.
- The zybook was good in the beginning. Very clear in lecture.
- Zybooks
- The zyBooks was very helpful.
- n/a
- Zybook is top tier m8
- For the first part of the course: zyBooks.
- The zybook was effective. Lecture and recitation were also important for understanding the material. Test questions were similar to the material taught.
- Lots of in-class examples of the textbook readings and demonstrations/diagrams of the different structures.
- I found that most of my learning in this course was from lecture, with only a little outside studying required
- The class is clearly outlined and the professor is very engaging hen giving lectures
- It is not mandatory to go to recitation.
- The online zybooks was extremely effective and the exercises in the same helped me greatly! I liked the multiple-choice format of the first exam. Dr. Miller is a great professor!
- Being taught by an experienced professor!
- The materials available and the recitations and office hours were very helpful for a better understanding of the class
- good lecturew
- the diagram example of modules.
- Literally just listening in class. He explained everything
- The zybooks, textbook help out a lot.
- The textbook followed the class material so that was somewhat helpful for extra understanding
- The textbook Prof. Miller provide is very useful
- The professor was very repetitive, causing me to retain concepts.
- The demonstrations in class by the professor to help us understand all the theories he introduced
- The teacher was very good about taking questions.
- Lectures provided information that exceeded the core course requirements, making the course far more interesting and applicable.
- The textbook and lectures were very effective. The methods of evaluation were tailored toward those who attended and read, and I appreciated that. Putting the zybook first was a good choice.
- Lectures went over textbook material very clearly and offered up opportunities to ask questions.
- the zybooks were effective, however they only spanned the first three weeks of the course
- Zybooks and professor's textbook were helpful in providing additional information to material presented in lecture. Lectures were always clear and helpful - he was able to answer any questions students might have had.
- Going to lectures
- Lectures

- Reading the book
- I guess the zybooks/textbook.. It's tricky though, considering this isn't Discrete Math, but rather a class on algorithms and computing model architecture. His textbook is the same one he uses to teach his graduate class! So all in all, the course as a whole isn't really effective BECAUSE WE DON'T LEARN WHAT WE'RE SUPPOSED TO (except for the first few weeks out of the Zybooks).

Please comment on course improvements you would suggest. -

- Actually teach Discrete Math, or change the name of the course to reflect what's actually taught.
- There should be homework and more structure to the class than just reading the text book and explaining a portion of the tested material in class
- By putting the lecture notes online. Dr. Miller's handwriting is sometimes hard to understand. When students ask what he wrote on the board, he says that even he can't read his own handwriting and not to worry about what he wrote. I'm not sure how else one can prepare for the exam then.
- This class needs a better textbook. His textbook is very confusing and is not helpful.
- 3 lectures a week for 50 minutes instead of two 80 minute lectures.
- Practice problems would help prepare some students for the tests a little bit better.
- I think requiring or assigning homework of some fashion would help solidify ideas in students minds more strongly.
- Consolidating material into one text if possible.
- The course is very difficult and maybe encouraging students to attend recitations more would help.
- none
- Maybe the order of what we learn can switch up a little. I was kind of confusing in the beginning
- The lectures felt as though they were not prepared beforehand and the professor was uninterested in actually explaining the material in a way students would understand
- Make attendance mandatory.
- nothing
- Hand writing is hard to read
- course notes online
- The course should have prerequisites, because for those who have not taken calc or have had limited coding experience, this course was very difficult to follow
- It would be great to have all exams as multiple choice. Course material increases in difficulty exponentially after the first exam. I found zybooks to be more effective than classroom instruction. Use of powerpoints that can be uploaded on website would be greatly appreciated.
- The professor's handwriting should be clearer.
- Tests sometimes have extremely vague and ambiguous wording for the questions with sometimes confusing grading criteria for open ended questions
- TA's were disengaged, made it clear in the beginning of the semester that they were only there to answer questions
- None.
- Test questions should be worded more clearly so students know what is expected. Grading for parts of exams was questionable at times.
- To use the projector so everyone can see.
- It would be more beneficial for the students if the professor had time for regularly-scheduled office hours, as opposed to only appointments.
- Please, class materials should be organized and explains more clear.
- Maybe use some new expo markers, I know you can afford it
- I really hate choose all that apply tests, they seem to be designed to trick students.
- I don't know.
- n/a
- It would have been good to have homework assignments besides Zybook.
- In my 2 years at UB I've never said this, but this class was way too easy, probably the easiest course I've taken at UB yet. Really if you went to ever lecture it was an easy A, no work.
- I would suggest making the zybook for the whole year. The textbook is boring.
- Homework that focuses on the topics of the course would help in understanding.
- There wasn't any material that the teacher gave on what to study for the tests. The first test was fine, but the teacher didn't provide any homework for the second test at all. Students went blind into the test not knowing what was on it. We cannot be expected to do well, if the teacher does not tell us what he expects us to have learned.
- N/A

- -
- Good.
- None
- The textbook is very difficult to follow so I would request the professor to structure the notes more clearly so it will be easier to study from.

For what primary reason did you enroll in this course? - Other (please specify)

- Other (please specify) Required for CSE Minor
- Other (please specify) Minor
- Other (please specify) interest

If you were dissatisfied with any of the instructional facilities, please explain: -

- Very hard to read the board, too many people for everyone to sit close enough to see
- -
- The technology is availible to be used but the professor doesn't use it as if it wasn't there.
- The classroom was very big and there was good technology to use in the classroom, but the teacher insisted on using the small whiteboard in the front of the class. If you in the back half of the lecture hall at all, you could not see the board well enough to take good notes.
- N/A
- I think the lectures should be recorded
- Needs better microphone. Can hardly hear him. He needs a bigger screen to write on, there is too much material to fit on a tiny screen.

Please comment on how effective the instructor was in teaching this course. -

- Not very. I've read the textbook but it doesn't explain anything. His lectures are built off of the textbook and if you don't understand the textbook then you don't understand the material and you're going to fail.
- Not completely effective. Already explained before.
- Basically gave a detailed lecture that elaborated on the textbook. Good for asking in class questions.
- Presented material clearly, well organized course layout, knowledgeable and enthusiastic professor in general. I would recommend this course / this professor to anyone.
- (Reiteration of earlier comments): He doesn't actually teach discrete math after the material based on the zybooks. This is extremely frustrating, especially considering how important discrete math is for CS and computing theory. What he does mainly teach (algorithms and computing model architectures), while important, is not discrete math. These things are important too, but that doesn't mean an instructor should teach them in a DISCRETE MATH course. Now, I feel very unprepared for my next course in the theory classes for CS, considering they are supposed to build off of CSE 191. Dr. Miller should either not teach discrete math, actually teach discrete math, or relabel the class to more accurately denote what is taught.
- Professor Miller was extremely effective. The material was challenging, however, it was presented in a clear manner with the goals of the course very apparent.
- Not very effective
- he should not change his approach
- The instructor was very effective
- I really enjoyed his teaching style. lectures were engaging--made students want to take notes--which i find is very important and difficult in a freshman course. Thanks for teaching me!
- Kind and enthusiastic professor. Provided large amounts of additional information about the topics, making the course more entertaining, applicable, and interesting.
- He was completely disinterested in teaching the material and talked down about students in order to make the material harder than it needed to be. He has no confidence that his students are intelligent enough to learn
- The instructor was very good.
- Russ Miller gave many example and gives teaches us what we need to learn
- He explained everything clearly and to the point of understanding. Only problem is he writes pretty messy and it's hard to read the board sometimes.
- Very effective
- Dr Miller was very helpful and presented the material as clearly as he could. He realized that it was an entry level course and did not expect too much from his students which I highly appreciate. He made sure to go slowly with all the different concepts and was very understanding throughout the course. I would love to take his classes in the future.
- Very effective. He loved what he had to teach and made it easy for students to understand clearly.
- Good.
- -
- Professor Miller tried to teach most of the tough concepts clearly but for the next class, I would ask him to recap the material learned last time very briefly so that we know where we left off from. At a certain point, the material becomes very difficult and it would be nice if he slowed down a bit.
- Use technology please. The back half of the class couldn't take good notes at all from the whiteboard. Overall, he is very self centered and doesn't seem to care about the students success at all.
- Dr.Miller does really well on explaining class material, and his grading policy is very favorable. Exam's difficulty are reasonable, very good professor.
- Very clear
- Very effective, lectures were very clear, if you paid attention in every lecture there is no excuse for this not to be an easy A, tests were more than fair.
- Prof. Miller gave good examples (real examples) of the material.
- It was great.
- Russ is a very smart guy, but don't ask too many questions, he'll grill you real good and remind you not to get ahead of yourself in a freshman course.
- Lectures are informative but, he doesn't use a microphone so its hard to review the information if you miss class or even just review.
- Did a great job. Super effective.

- Please make an office hour and dont charge to the TA to do everything.
- good
- He is very entertaining and is very willing to answer questions that any of the students present while in class. Seems interested in making sure the students fully understand the material that he is presenting
- His use of zybook online learning was very effective. I liked the multiple choice format of this first exam. Very passionate about what he teaches. Emphasizes learning more about himself.
- he was effective in teaching the material and keeping the class engaged
- Prof. Miller was great in demonstrating all of the material and stressing what was important for students to know. He went at a great pace and was good at answering questions that arose in class.
- Concepts were usually explained clearly and in detail.
- The instructor will write all the material on the whiteboard but his handwriting is sloppy. He barely uses technology to present the material, which causes that people sitting in the back may not be able to see the material. However, he always tries his best to explain the points he is trying to make. If students do not get the material the way he explains initially, he may say it again from another angle.
- I enjoyed Russ Miller's lectures, and thought that he laid out the structures in a very logical fashion

Please comment on how effective the teaching assistants(s) were in helping you meet the learning outcomes of the course. -

- n.a.
- not really.
- Did not really interact with TAs other than the first day of recitation.
- N/A
- Never met them
- They were good.
- Receptive to questions, but would sometimes seem a little annoyed by some questions that students would ask
- They got me ready for my exams.
- I knew Qi Li outside of his time as a teaching assistant and he is a helpful guy, although I never attended his recitation for CSE191
- Recitation was entirely question and answer. If you didn't have a question there was 0 point in going. However I feel that going over the material in different words/in a different perspective would have been really helpful. My particular TA did not always answer their email leading to some frustration. The main TA, who's name I don't recall, was harsh and hard to approach. He seemed to enjoy the power while not really enjoying helping out. My test was marked wrong on an easy clerical error, which is super understandable and just happens, but he was very hard to talk to about fixing it. He made it seem like i was personally trying to ruin his day by asking for the right grade. He is not a people person.
- Initially, the TAs were directly going through zyBooks, which I hated. Being required to go through zyBooks on our own, it was annoying to go to recitations simply to see what I had already covered being covered again, and the TA seems to have less familiar with some of those things. As time progressed, the course became more difficult, and the TA became more useful in reviewing the course content.
- none
- N/A
- The teaching assistants were helpful and accessible, but often didn't know answers to simple questions related to the course material
- TAs had a high understanding of the material and were effective in answering questions clearly.
- they were good
- I didn't really go to office hours so I can't say much about them, but when the TA's taught the class if Prof. Miller was out, they were very knowledgeable and good at teaching the material.
- -
- He did well.
- There were many office hours and recitations to ask any questions regarding the course material.
- I never go to recitations, so no opinions on this question
- I wish TAs would have attended lectures so that they would be on the same page as professor Miller. It almost seemed at times that there was a lack of communication between professor and TA. Otherwise, the TA was very effective
- Mr Zulkar Nine was very helpful too. He was always present at recitations and answered any questions we had. He never hesitated in answering questions and we could ask him the same question over and over until we fully understood. He made sure that everyone understood what was being taught before moving forward.
- They answer questions when asked, but sometimes there was some attitude/condescension/sarcasm which did not contribute to a collaborate/comfortable environment (e.g. "Wow, are you serious?" or "Okay, fine, I guess we can go over that...")
- The teacher assistant I usually go to is awesome. He seems to have all the knowledge of this course. He can respond our questions immediately without spending too much time thinking and give us the correct information.
- I don't know.
- Nice.
- TA's were clear in the beginning of the year that they were only there to answer questions, and that they would not prepare any material, and did not care if we attended recitation
- TA'S would've been more help if we were required to go to recitation. In the beginning of the semester the TA's were not needed but after the first exam, they were not available as they skipped recitation!
- From Day 1, the TA said this would be a Q&A type recitation. Since nobody had any questions, everybody left, and I also forgot that I even had recitation for this class after that.

- I did not go to see them often, but they were always there to answer my questions when I sought them out.
- QnA recitation

What do you consider to be a reasonable number of students for a course like this? - Feel free to describe below.

- Feel free to describe below. A lecture hall like Norton 112 was not perfect for the class, because anyone farther than 5 rows up would have a very hard time reading the board. Also, larger lecture halls are not ideal for asking and answering questions, especially for a conceptually heavy course.
- Feel free to describe below. Whatever we had seemed to work for me. Because it was the morning i'm pretty sure half the people in the class did not show up.
- Feel free to describe below. Any class size seems appropriate. The class doesn't leave many questions unanswered, and if you have a question, the TAs for the course always have free time every day of the week to answer you.
- Feel free to describe below. however many the room fits
- Feel free to describe below. The material is not difficult as long as one reads the textbook. Because the lectures are based of the textbook (which the professor helped write), it is okay to have lots of students in the class.
- Feel free to describe below. I think it's fine for this class to be fairly large (especially since most kids do not show up to class). Prof. Miller was still able to answer all of our questions and move through material in a timely manner.

If resources were added, would you like to have regular homeworks or quizzes? Would you like to have some programming assignments (assuming programming as a prerequisite)? Would you like to have Calculus as a prerequisite so that comparisons could be made between continuous and discrete mathematics? - Please provide answer below - this survey has issues. My apologies.

- Please provide answer below - this survey has issues. My apologies. I think homework and quizzes would have been helpful, but not completely necessary. I would have also liked to have Calculus as a prerequisite, but I think the course was good without it.
- Please provide answer below - this survey has issues. My apologies. Making programming as a prerequisite could be helpful.
- Please provide answer below - this survey has issues. My apologies. I think that people who want to take this course should take Calculus as a prerequisite. Since Calculus may make the problem-solving process easier and quicker. In addition, I would like to have some programming assignments. Because I want to get more insight into the knowledge in this field. However, homework or quizzes would not be the elements I want to add to the course. Since programming assignments are already going to take students a lot of time to finish. Having homework or quizzes is just adding more pressure to the students' shoulders.
- Please provide answer below - this survey has issues. My apologies. I think having a little bit of homework would help as it would make sure that everyone actually revises the material in a timely manner and does not put everything for the last minute.
- Please provide answer below - this survey has issues. My apologies. Yes, the more involved I am in the class the better I do.
- Please provide answer below - this survey has issues. My apologies. homeworks are better, no programming, i dont feel a calc prereq is needed
- Please provide answer below - this survey has issues. My apologies. I thing occasional homework and quizzes would be helpful, but because this is a freshman course, I don't think calculus or programming should be required, as that would limit the amount of entry level students able to take the course.
- Please provide answer below - this survey has issues. My apologies. I think a calculus prerequisite would put this course into the 200 level at least. That being said, minor programming assignments would be very helpful, I believe, and they would allow it to remain at the 100 level. Regular homework would be appreciated, simply to fortify learning.
- Please provide answer below - this survey has issues. My apologies. I would not prefer for this course to have prerequisites or homework assignments.
- Please provide answer below - this survey has issues. My apologies. Quizzes would be helpful, and having prerequisites would be preferred
- Please provide answer below - this survey has issues. My apologies. Require calculus as a prerequisite, and add a few quizzes
- Please provide answer below - this survey has issues. My apologies. Would have loved calculus as a prerequisite - comparisons between the fields of mathematics would have been wonderful. Regular homeworks and programming assignments would have been a nice option, but may have become overbearing if they were assigned a point value.
- Please provide answer below - this survey has issues. My apologies. Yes
- Please provide answer below - this survey has issues. My apologies. Yes
- Please provide answer below - this survey has issues. My apologies. Calculus as a prerequisite would definitely be helpful and would allow Prof. Miller to go through material even faster/go more in depth with examples. I think having regular homework would be helpful in retaining the material more, since there are so few tests and lots of material in between each test. As far as programming, it could be useful to have maybe 1-2 programming assignments to make a connection between the structures and real life, but I liked learning about the more abstract models.
- Please provide answer below - this survey has issues. My apologies. homeworks would be good. I have taken calculus and it helps, so yes or a corequisite. small programming assignments will also help
- Please provide answer below - this survey has issues. My apologies. It would definitely be valuable to have some level of programming as a prerequisite, and actual programming assignments. Regarding having Calculus as a prerequisite, I am undecided, but if so, only Calculus I, perhaps. Consider that as it stands, many people who take the course (in Spring, at least) might be second-semester freshmen, and should have just completed Calculus I and would probably be in Calculus II.
- Please provide answer below - this survey has issues. My apologies. Yes because it is easier to understand with programming experience
- Please provide answer below - this survey has issues. My apologies. I feel having at least Calc 1 would be helpful for students to understand the distinctions between continuous and discrete maths. Someone once asked me what CSE191 was, and when I answered Discrete Math, he asked, "Is that when you do math, but just like, really quietly?"
- Please provide answer below - this survey has issues. My apologies. I think have programming and at least single variable calculus as a prerequisite would make the class much more interseting

least single variable calculus as a prerequisite would make the class much more interseting

- Please provide answer below - this survey has issues. My apologies. More regular homework and assignments would be good for grading buffers but because it is an introductory course I do not think that calculus or coding should be required during the class or as a prerequisite
- Please provide answer below - this survey has issues. My apologies. More resources for practice materials. Homeworks, simple programming assignments, etc
- Please provide answer below - this survey has issues. My apologies. Yes and no, this answer has issues as well. In one sense, it could be very easy to do well in the course without knowing how these things apply to Computer Scientists. One could just read the textbook and ace the course without learning anything. On the other hand, most students (myself included) and in other courses that are rigorous at this time, just like Calculus and CSE 115 or 116, and 116 is very programming heavy with the weekly write-ups. The lectures were informative enough in my opinion. If you just read the book you wont get a lot out of it, but if you attend lectures you will.
- Please provide answer below - this survey has issues. My apologies. Yes
- Please provide answer below - this survey has issues. My apologies. Calc should probably be a prereq. Coding, it's hard to say, we didn't really talk about coding coding if you know what I mean. Potentially more short assignments would have been helpful, even if they weren't collected for grading. Also I appreciate that last question.
- Please provide answer below - this survey has issues. My apologies. I think it would help honestly. The only problem is, if it's a requirement it can really screw a lot of kids over. If there's a way to highly recommend you take calc/CSE 115 before.
- Please provide answer below - this survey has issues. My apologies. no calc prerequisite and no homework
- Please provide answer below - this survey has issues. My apologies. would be helpful
- Please provide answer below - this survey has issues. My apologies. Regular homeworks would be nice. Calculus requirement should be a most. CSE115 should also be a pre-req, that way the student have some type of programming experience.
- Please provide answer below - this survey has issues. My apologies. I don't think Calculus should be a requirement for this course, it doesn't need it and will hold back students that are having trouble with calculus. Regular homeworks and quizzes would be nice to make sure that we are preparing the right material for the test
- Please provide answer below - this survey has issues. My apologies. Yes, yes, and yes.
- Please provide answer below - this survey has issues. My apologies. Yes, some assignments would be great so that students could practice problems
- Please provide answer below - this survey has issues. My apologies. I think the class the way it is, is set up well.
- Please provide answer below - this survey has issues. My apologies. I think its better if the class stay is it is, and no change needs to be made
- Please provide answer below - this survey has issues. My apologies. No, this course is fine for beginners.
- Please provide answer below - this survey has issues. My apologies. Regular homeworks would be good for keeping students on task, since, in a freshman course like this, it is easy to put off studying and understanding material thoroughly until the last minute.
- Please provide answer below - this survey has issues. My apologies. More hw and quizzes
- Please provide answer below - this survey has issues. My apologies. Regular homework/quizzes wouldn't be the best idea. Some programming assignments would be interesting and a good inclusion. I don't think Calc is required as a prereq.
- Please provide answer below - this survey has issues. My apologies. I think that would help, I'm not completely sure about it. One problem I had with this class was, Dr. Miller always explained the concepts and never went over problem solving. So based on what's being suggested in this question, if it were to be done, I think the course would make more sense.
- Please provide answer below - this survey has issues. My apologies. It would be better if there were homework's because after the first exam there were no materials to work on. I do not believe that this class should have a calculus requirement because there isn't much calculus discussed in the lectures at all.
- Please provide answer below - this survey has issues. My apologies. Yes, there should be regular hws/quizzes. It would be nice to have programming assignments to better connect that part of CS to the theory.
- Please provide answer below - this survey has issues. My apologies. I think calculus or programming may have made this course a little more meaningful and applicable, so i don't think it would be bad to have calculus or programming as a pre-requisite. Honestly, after taking Calc 2 and 3 the math in this class was a joke.
- Please provide answer below - this survey has issues. My apologies. I would like to have some programming assignment, which will be helpful.