

Algorithms (Fall 2023)

Instructor: **Pavlu, Virgil**
Subject: **CS**
Catalog & Section: **5800 01**
Course ID: **10685**
Objectives:

Enrollment: **37**
Responses Incl Declines: **18**
Declines: **1**

Instructor Related Questions: Virgil Pavlu (28 comments)

Q: What were the strengths of this course and/or this instructor?

- 1 i believe his remarkable experience and knowledge with the course and teaching itself, is his greatest strength. He is easily the best professor who taught me.
- 2 Prof. Virgil is a genius, his lectures are really good and it looks at the material is a different perspective.
- 3 good at explaining hard concepts in a simple manner, good at breakdown hard to read textbook chapters into easy to follow lectures.
- 4 I really enjoy how the professor would sometimes leave small / managably-sized holes in the material in class, leaving bits for us to think about on our own time. With this, I knew where to devote my extra time to go deeper into the content.
- 5 The instructor was very clear about the expectations for the course, and cared about the learning of the students very much.
- 6 Professor Pavlu is highly knowledgeable, great teaching style and expresses ideas very effectively. Related how certain topics have modern day applications. Immense knowledge and overall an excellent professor. The exams were highly challenging and pushed us to prepare harder for it.
- 7 The way Professor Pavlu teaches algorithms, once the class is done even the advanced topics start to seem easy. And he does this without spoon feeding everything making you think about all the details and coming up with solutions on your own.
- 8 professor was very knowledgeable about the material
- 9 He is very enthusiastic about this course even after teaching it for so many years. He explained everything clearly but also challenged everyone to think for themselves as well. He cleared all doubts for everyone.
If you want to learn about algorithms and then potentially work in top tech companies, I strongly recommend taking his class as it will help you understand where you stand.
- 10 The instructor was great at teaching and explaining the difficult concepts of the course. He used visualized and outlines very clearly and well in class on the whiteboard while explaining the concepts. Class was definitely valuable and every word out of his mouth was pure gold.
- 11 Prof. Virgil is a great instructor, the best in NEU. An old-fashioned teaching style of writing everything on the board instead of slides makes the course interactive and engaging.
- 12 I think that the professor is very passionate about algorithms.
- 13 The professor made me understand Dynamic Programming better. He is an amazing teacher.

Q: What could the instructor do to make this course better?

- 1 More solved questions would have been super helpful. I believe I would have done significantly better if this was available.
- 2 The assignments were a bit lengthy in some weeks and especially the weeks leading to the midterm and end term exams, I felt the time spent in typesetting the assignment could have better been utilized studying for the exam.
- 3 Provide some kind of pre requisite brush up materials, the initial days were full of math, and I really struggled to find the rhythm. I completed my bachelors 6 years ago, and the last time I studied math was 7 years ago, so was finding it a little hard to follow along. The math was nothing new, just that I was out of touch for a long period and the class was fast paced.
- 4 Do some more background concepts coverage, for people who are not having the sufficient pre-req, else the course becomes too heavy.
- 5 Sometimes I feel like the professor wants to make the course hard simply for the sake of making the course hard, not to challenge the students directly. In addition, I wish we had more time in the class devoted to solving problems, rather than just lecture. However, I do understand that we were very short on time and taking time out of lecture to do this might not be possible.
- 6
 - since this is the undergraduate section of graduate algorithms, do not just brush over concepts that we "should've learned in undergraduate" when this is the section specifically meant for people who haven't taken it before
 - make the homework and midterms more relevant to what we actually go over in class, I understand graduate courses are more independent, but it should not be to the extent where I can only do 1 of the homework questions based on what I learned in class, and the rest I have to teach myself
 - or teach the material that will be on the homework/midterm in class
 - return homework grades and regrades back in a timely manner, it is impossible to assess how well we understand the material if we don't know our grade
 - more often than not, students' piazza questions are unanswered and it is very difficult to get help and feedback
 - the midterm is incredibly unproductive and does not evaluate how well we know the material in the class, just how well we knew one specific topic that we had yet to receive sufficient feedback on. less than 10% of the class got above a 50%, and even with a curve, the average was still failing
 - ~ 8 hours is too long for an exam with 6 questions that doesn't even assess most of what we have learned
- 7 Nothing
- 8 The instructor cannot do much to make the course better as he already does a lot at a very high level that is both conducive to learning and material retention.
- 9 I think it would be better if some sort of rubric for the homework was provided. At least for the first 2-3 homework so the students have a clear idea of how much detail they should provide in the solution. Also, it would be great to see the complete solutions for some of the problems, specifically hard DP (after the HW is graded).

Q: What could the instructor do to make this course better?

- 10

I think that the professor could take his time going through topics like dynamic programming with much more detail. Too often we would go over an example and then never fully complete it. He would explain the theory but not go over the pseudocode which made it difficult to visualize how to actually implement the solution to the problem.

The professor likes students who come into algorithms with a good background knowledge of the subject. This is understandable as it is a masters class. However, many undergraduates were taking this class as part of the PlusOne program. As an undergraduate coming into the class with no algorithms background it made it very difficult to follow along and learn the topics properly. The professor acknowledged that there were undergraduates in the class but made very little effort to help them. He often said that we "should have seen this exercise in undergrad" even though we had never taken an algorithms class before. The resources on the class webpage were very limited. As a result, I had to find my own materials to teach the topics to myself. The professor needs to take the time to help all of his undergraduate and graduate students with these topics. He needs to explain them more instead of skipping over key details.

Multiple times throughout the semester we would not learn a concept until the day the homework was due. This happened with topics like memoization as well as Prim and Kruskal's algorithms. So we had less than 12 hours to use the information we learned in class to complete the homework.

Unfortunately, I feel like I did not learn much from this class. I was constantly struggling to keep up with the material so I fell behind several times. I felt like the YouTube videos I found did a better job of explaining the concepts than the lecture did.
- 11

I think there were a lot of assignments and less time to study what was taught in class

Q: Please expand on the instructor's strengths and/or areas for improvement in facilitating inclusive learning.

- 1

I think a lot of students are not initially confident about their solutions and methods and reasoning, so including a bank of solved question, I feel would be one of the greatest resources for average students, if not all.

Otherwise, there is no way his lecture/class could be more inclusive. each lecture was a concentrated dose of pure insight.
- 2

I strongly believe he is one of the best professor in Khoury.
- 3

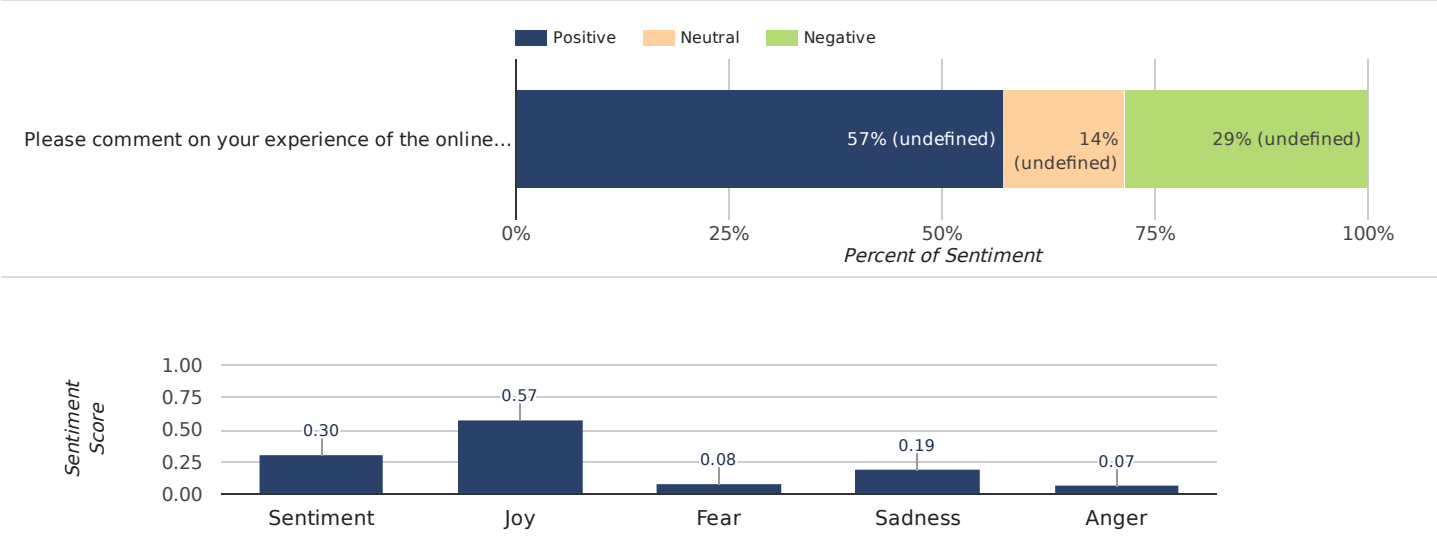
At the beginning of the course and throughout each new concept the instructor would oftentimes use words designed to scare the students about the difficulty of the material in the course. This turned me off to some of the earlier lectures due to the fear tactic that he employed, which was probably just to get people serious about the course and its difficulty; however, the students already knew the extent of the difficulty of the class and this only turned scared me enough to turn me off to learning.
- 4

I do not think the professor understands the negative impact that his class and exams have on students. For many weeks I felt like I was failing this class after the midterm exam. I could not focus in class and I felt very discouraged. I was constantly worrying about whether or not I would pass this class.

The professor makes the midterm intentionally difficult to the point that the average is 45%. I understand wanting to make an exam hard to show students the kind of algorithm questions they might see in interviews. However, I feel like if that many people do poorly then I feel like the exam is not really an effective assessment. I also just felt really defeated after the exam which made it hard to want to continue learning in this class.

Questions to Assess Students' Online Experience (7 comments)

Q: Please comment on your experience of the online course environment in the open-ended text box.



- 1

Except for the TA office hours, we did not have any online class sessions. ★★★★★
- 2

quite good ★★★★★
- 3

The online resources provided such as the videos and the slides were really helpful to revise the concepts after lectures and covered all the topics in class. ★★★★★
- 4

The questions on piazza were not always answered. There were a lot of open ended questions. It would have been awesome if TAs could make sure the questions on piazza were addressed. ★★★★★
- 5

The online code demos were well run and instructors generally showed up to the assigned slot. ★★★★★
- 6

The course website is useful and has lots of relevant links, but almost too many. Near the start of the semester I was confused with what resources were actually helpful and which were just there for future reference. Maybe the layout could be changed or a more detailed explanation could be added (in addition to the pre-existing discussion on the first day of class). Posts on Piazza were generally responded to slower than in other classes. ★★★★★
- 7

Assignments were not published in a timely manner. Sometimes it two weeks to receive grades and feedback for a homework assignment. By that time we had already moved on to the next topic so those who were struggling were left behind. Regrade requests took more than two months to be answered! Nothing in this class was done in a timely manner. As a result, it made it very difficult to know how you were doing in this class. ★★★★★

Student Self-Assessment of their Effort to Achieve Course Outcomes (10 comments)

Q: What I could have done to make this course better for myself.

- 1 Course generally requires you to have few prerequisite knowledge on many topics even though it does not say so in the course requirements. Having that knowlege prior to the course would have certainly been beneficial.
- 2 I could not have done anything to improve the course, and this may not be upto the professor, but I strongly feel more lecture hours would have helped.
- 3 If I knew the details of the schedule before hand I could have brushed up on the more advanced topics before the start of the semseter that were assumed to the pre reqs.
- 4 I have spend almost 20-40 hours per week for this material. I was taking a lot of time in completing the assignments. I should have spent more time in solving questions outside of the assignments, but I really couldn't find time :{
- 5 I did everything I could
- 6 I should have some background on algorithms.
- 7 I could have spent more time on assignments and learning the material rather than just doing it for the grade. I tried to maximize the grade which hurt my learning and also probabaly hurt my grade.
- 8 I should have taken this course by itself during the summer. If you try to take this course with any other difficult courses, you will struggle. Most weeks I had to contribute 25 to 30 hours to work on the concepts and do the homework.
- 9 More practice
- 10 I could have put a little more effort