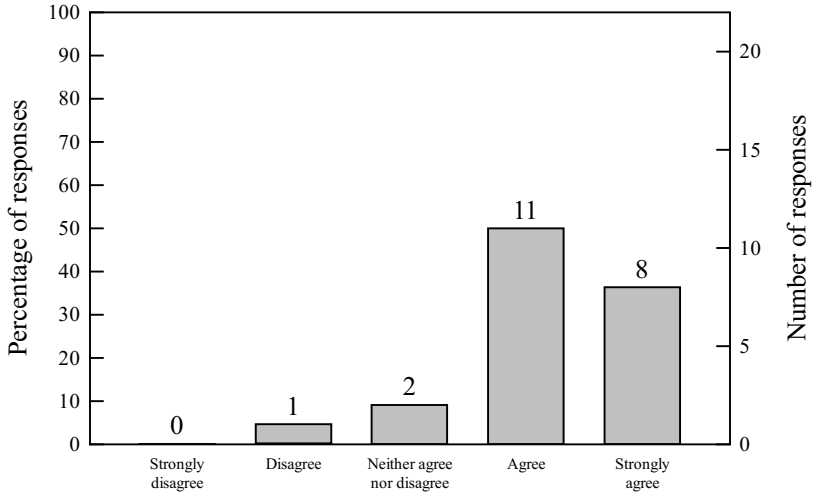
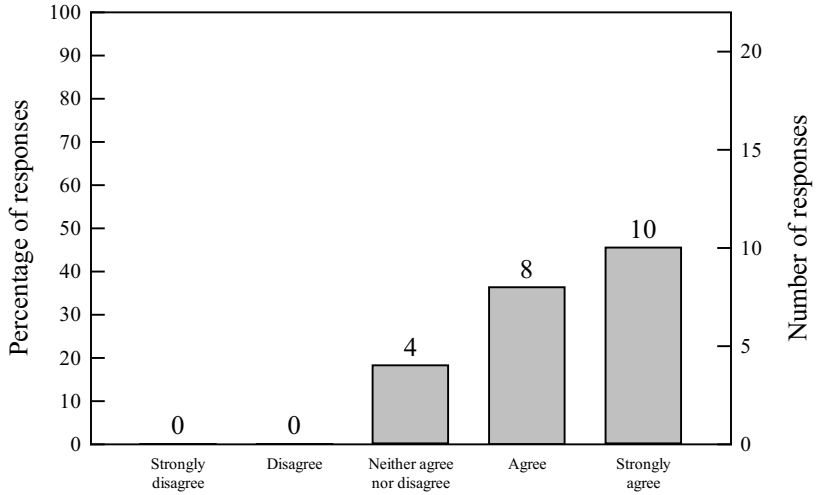
CSCI 0200A: Math Foundations of Computing [Fall 2023]

Chodrow, Philip

Number of response forms completed: 22, of 24 total students enrolled



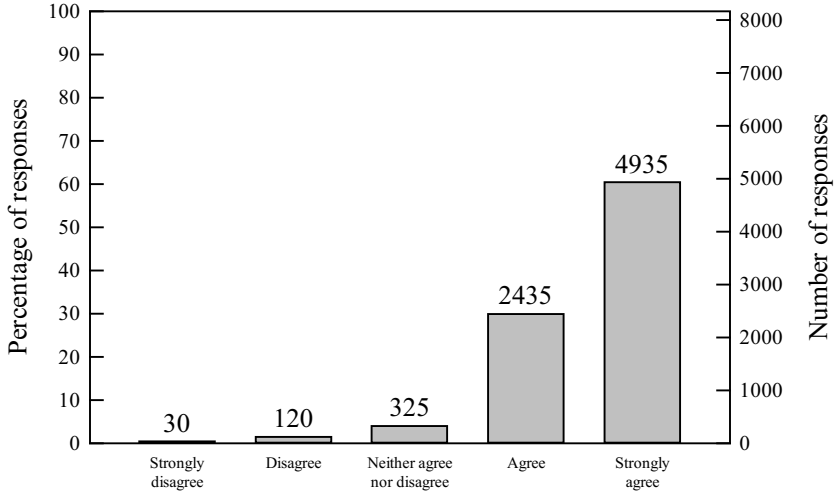
I learned a great deal in this course



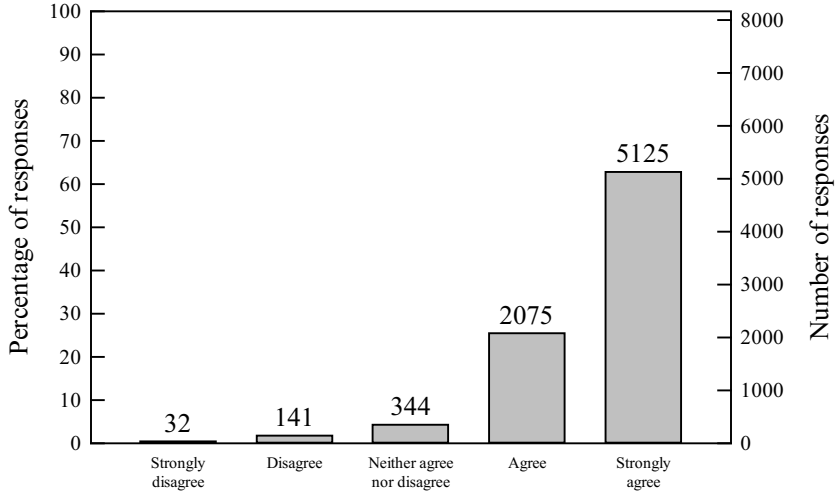
The instructor's teaching in this course was effective

Aggregate of all courses in Fall 2023

(All Staff)



I learned a great deal in this course



The instructor's teaching in this course was effective

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

I learned to write proofs and think logically in math and think about algorithms

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

I think the labs helped me more than anything.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

It is part of my major

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

I went to most classes and spent many hours outside of class

Strongly agrees with "I learned a great deal in this course."	□□□□■

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

The instructor was effective but perhaps needed more time to fully explain the concepts

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

Yes I knew what was expected of me and I could adequately portray my learning

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

I didn't like the flipped class structure

Agrees with "The instructor's teaching in this course was effective."	□□□■□

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

Proofs

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

really good way of teaching

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

major

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

7-8

Agrees with "I learned a great deal in this course." □□□■□

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

very effective

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

it was good

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

na

Strongly agrees with "The instructor's teaching in this course was effective." □□□□■

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

I learned math concepts related to what I was learning in java for Data Structures.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

Yes, the course is contributing to my learning by incorporating different types of learning (practice, warmups, gorup-work, individual practices, quizzes, etc).

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

I took this because I am interested in majoring in Computer Science.

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

I tried my best and spent approximately 5-7 hours per week outside of class on the works.

Neither agrees nor disagrees with "I learned a great deal in this course." □□■□□

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

Going over concepts in class were helpful.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

Yes, and some problems were challenging.

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

Personally I find the flipped classroom approach very challenging for me to grasp on the topics we are learning, but I'm sure other people might find this flipped classroom approach helpful.

Neither agrees nor disagrees with "The instructor's teaching in this course was effective." □□■□□

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

I think my math skills improved a lot, it felt like i learned a tiny bit from a bunch of different subjects and didn't go too deep into any one.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

It was a flipped classroom, which I didn't love personally, but I think it got better once we started having a more structured class with a little lecture review mixed in. I liked the sources for the readings and videos for the most part, but they were also all outsourced and I think it would have been better if Prof. Phil made his own content for at least some of the learning targets.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

I took it because I am a CS minor.

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

I did really well in the course, I worked hard and attended all classes, probably 3 hours outside of class per week, maybe 4-5 on weeks where the lab was confusing or I was studying for a quiz

Agrees with "I learned a great deal in this course." □□□■□

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

I think he did a good job of letting us practice in class, which strengthened my knowelege but it very infrequently felt like he was actually teaching. A lot of times I felt moreso like I was teaching my group members who were sometimes behind me because they didn't do the work beforehand required for class, and then Prof. Phil would check in and say something to me if my group members didn't exactly understand everything as I did, and make me re-go over it with them, which didn't feel fair. That being said, learning the course material did feel very easy for me, I attended office hours when I was confused and I found that to be helpful.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

The ability to retake problems on quizzes until you get it once is a really good concept, but I thought the lab grading system was stupid. The N/R/M/E system evalutions made me feel like an E was an A, a M was A B, so on... but I would make the tiniest single mistake (example, forgetting to divide by 16 or not using the term "addition principle" when describing the addition principle) and I would be knocked down to an M. While we could retake these, it felt unnecessarily stressful and really highlighted the idea that in order to do well in the course, we needed to be PERFECT.

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

I liked the course content a lot, and the flipped classroom method is okay for this course but could have been a lot better. I feel like the guy who's youtube videos we watched sometimes taught us more. That being said, I think Prof. Phil did care about us and making sure we understood the concepts, and was always happy to answer questions which I appreciated, but with that system, some classes we got held up simply because some people didn't do the required work before class.

Neither agrees nor disagrees with "The instructor's teaching in this course was effective." □□■□□

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

I learned about proof techniques and other mathematical topics and their relation to computer science. This course has helped to develop my critical and analytical abilities through the solving of these problems.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

The readings and homework problems were not very helpful in my learning. The lab section of the class was very helpful to my learning.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

I took this course because it fulfilled a major requirement for computer science. The course is in my major

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

My own performance is very strong. I spent about 4 hours per week outside of class. I attend 100% of the classes in the course

Agrees with "I learned a great deal in this course." □□□■□

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

Because of the structure of the class being flipped and learning new concepts for homework, the professor did not explain new concepts very often. When the instructor did explain the concepts, it was very clear and effective. The instructor was very good at developing mathematical skills and facilitating understanding of the course materials' significance

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

Yes, the quizzes and labs provided an adequate opportunity to convey the learning of the course. The standards of evaluation were clear, though complicated

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

I think the course should not be a flipped classroom. I think lectures would be far more helpful.

Agrees with "The instructor's teaching in this course was effective." □□□■□

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

I learned how to understand the math behind multiple logical processes in computer science as a whole. It helped me critically think and learn to apply math to difficult concepts.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

The flipped classroom helped me learn the material beforehand and come to class prepared. The warmups provided a nice challenge to test my understanding. The labs were helpful in viewing the material in a hands-on way. Lastly, the structure of the quiz initially took some getting used to, but proved useful in the end.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

Major/minor requirement

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

I spent about 6 hours a week and went to every class.

Agrees with "I learned a great deal in this course."	□□□■□

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

The lectures were mostly out of class but he learned to give more insight in class as the year went on. He would answer questions and be helpful in office hours.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

Yes. It was challenging getting every question completely right, but it started to make more sense as the year went on.

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

Prof Phil was incredibly adaptive and understanding of his students during a difficult semester. I really appreciated his enthusiasm with the course and its material. He was great!

Strongly agrees with "The instructor's teaching in this course was effective."	□□□□■

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

I learned a great deal about the mathematics behind computing and how to accomplish such mathematical endeavors in computer science.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

I would say that the flipped classroom setup did help me to an extent. I was definitely grateful to have the large amount of resources to get by, along with the support of the readings.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

I am majoring in computer science, and this course was required.

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

I would say that I did a good job. I tried to attend every class, and the ones I couldn't make, I went to office hours.

Strongly agrees with "I learned a great deal in this course." □□□□■

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

The instructor was fantastic. He always encouraged me during class and made himself available whenever I needed help. Him always saying "Good job today" or "Great work today" always lifted my spirits. It felt very genuine, and I deeply appreciated it.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

Sometimes the standards were clear. The way the labs were graded would sometimes be a little confusing because I could get a low score for a minor error, but the true of the quizzes were beneficial. I could focus on one topic to study rather than a whole bunch of random ones.

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

I would say that, overall, the flipped classroom concept was good. Just the grading was a bit strange and confusing for me.

Strongly agrees with "The instructor's teaching in this course was effective." □□□□■

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

This course was a good challenge in terms of mathematical literacy, critical thinking, and technical writing. I think I was able to learn a lot of new concepts such as recurrence relations, graphs, and review topics like probability. The structure of this class was particularly helpful for bettering communication skills and group work.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

I think that the flipped setup of the class was a bit challenging for me. I learned more in the brief recap sessions that we did at the beginning of every class than I did trying to do readings and warmups on my own. I think warmups after lectures would have made me feel more confident and I think I could have learned quicker. However, I do think the time spent doing practice problems in class was a valuable challenge. The videos we did before class were often very good, I just didn't feel like I had learned the material well enough on my own to do the warmup problems a lot of the time.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

I took this course because it is required for the CS minor.

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

I would say that my performance was strong in the course. I spent about 6 hours a week outside of class working on this class and I attended every class.

Agrees with “I learned a great deal in this course.” □□□■□

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

The Professor did facilitate a lot of practice problems and group work, but overall I feel like did not spend a lot of team explaining new concepts. Almost all of the "lecture" learning came from youtube videos from a math professor that posts discrete math lessons online. I feel like these videos were good, but our professor didn't spend much time actually going over new concepts himself which then made homework more challenging.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

Standards of evaluation for labs and quizzes were clear. I really liked how we just had to check things off and there were multiple opportunities to check off every learning target.

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

I think the flipped class structure has some merits, but I don't think completing new content videos AND problem sets before class made sense because I often had questions about the readings or videos that I couldn't get answered until after I was supposed to have done a problem set already.

Agrees with “The instructor’s teaching in this course was effective.” □□□■□

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

I have learned a tremendous amount within the field of Discrete Mathematics, and it's applications to computer science.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

I enjoyed the in class work we did and the structure of the class, which really allowed us to get in a lot of practice.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

I took this because I was curious but also am considering a minor.

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

I spent around 5 hours a week outside of class on this class.

Agrees with "I learned a great deal in this course."	□□□■□

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

Phil was a great professor who was really good at explaining the intricate nuances of discrete math. He was very accommodating in general and ultimately just a great guy, probably the best CS Professor I have had here so far.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

Yes expectations were clear for the most part, except the grading for Labs could get arbitrary at times.

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

Strongly agrees with "The instructor's teaching in this course was effective."	□□□□■

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

This class has helped me improve my math and reasoning skills. I feel much more confident in my ability to work through complex math problems and understand the logic behind topics like proofs.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

I enjoyed the flipped classroom approach where we watched videos for homework and did problems in class. I found that the warmup videos were really helpful, and I enjoyed group work in class.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

I took this course because it is a requirement for the minor.

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

I came to most of the classes and I spent around 6 hours each week completing warmups and working on the lab/studying for a quiz

Strongly agrees with "I learned a great deal in this course."	□□□□■

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

Phil is extremely effective in explaining new concepts. He brings a great energy to the classroom and is always very engaging when he's explaining material. He is able to make really confusing topics seem very clear and even though the bulk of the actual learning was done for homework, I always felt like I could come to class and everything would make sense.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

I thought the lab assignments were challenging but always very fair. I was at first now a huge fan of the quiz grading system after a few quizzes I definitely came around to it and like the idea of learning targets.

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

I would suggest changing up lab groups once in a while, but other than that I wouldn't change anything. I think the emphasis on group work should definitely be maintained and I like the inclusion of labs and quizzes.

Strongly agrees with "The instructor's teaching in this course was effective."	□□□□■

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

It is taken to satisfy my Minor's requirement.

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

Strongly agrees with "I learned a great deal in this course." □□□□■

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

Strongly agrees with "The instructor's teaching in this course was effective." □□□□■

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

This course has helped me think logically and write proofs for the problems at hand. I also learned how to write mathematical lab reports using LaTeX syntax. These skills, in addition to the brief introduction to various concepts in the class, have given me a strong foundation for my future CS electives and potential career paths.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

I think the flipped model in this class did a great job of allowing me to get a hold of the concepts that we had at hand. However, learning targets felt very inaccessible throughout the semester. I liked that with labs we had the opportunity to revise our work for full credit. This incentivized me to go back to my work, go to office hours, and ask the questions I needed to ask, which both helped support my learning and lifted a huge weight off of our shoulders. I wish that learning targets could be achieved in a similar way to how we earn E's and M's in labs because they definitely had a huge impact in our grades and I genuinely think I wasn't learning as much from the learning targets as I was from the labs. I don't think we had enough practice with the learning targets and it was more of a strategy game, trying to figure out what the "easiest" learning target would be in order to avoid falling behind.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

I took this course for my major.

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

I would say I dedicated the appropriate amount of time preparing for this class outside of lecture. I spent about 1-2 hours before every warmup, which we had 3 of every week. I also spent around 2-3 hours a week working on labs. Additionally, I would consistently show up at office hours and either work on the assignments for the class or ask questions about the learning targets in preparation for future quizzes.

Agrees with “I learned a great deal in this course.”	□□□■□

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

Prof. Chodrow was effective at teaching. His office hours were always helpful.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

I agree with this statement for labs. I would disagree with learning targets in our quizzes. The standards of evaluation were clear. I just think we didn't have enough structured practice to be able to perform the way that the structure of the learning targets expected us to perform. We would go over the basic concepts of each learning target in class but the quizzes often asked us to answer based on a nuanced problem that required us to call back on knowledge from previous courses. Because we weren't allowed to revise our quizzes for a grade, I felt like I was stuck answering the same few learning targets trying to keep up with the class as opposed to being able to focus on learning how to perform the next learning target.

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

Agrees with “The instructor’s teaching in this course was effective.”	□□□■□

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

I have learned proof styles, induction, and the math behind some data structures.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

I think the labs were really helpful, and I enjoyed working on them in class with others. I think the quizzes were a nice lower stakes way to test my learning. I did not like the flipped classroom style. I found the warmups hard to do or understand because I had relatively little information beforehand. I would have appreciated a more traditional structure with instruction in class and work at home. I think with doing labs on Friday we would still get that in class active piece. I would have appreciated a more thorough introduction to the material in class, warmup-like problems after class, and then the more challenging problems in lab on Friday.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

Minor

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

Agrees with "I learned a great deal in this course."	□□□■□

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

I think Professor Chodrow is a wonderful teacher. He clearly cares about his students and is very understanding and approachable. He is good about answering questions, explains concepts clearly, and has a very good energy for an 8:40 class which is awesome. I did not love his class structure but I do think that he is an amazing professor.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

Agrees with "The instructor's teaching in this course was effective."	□□□■□

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

i learned a lot in this class specially about how to use proofs more

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

warm-ups are the best

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

it is required for my major

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

perfect 3 hours outside

Strongly agrees with "I learned a great deal in this course."	□□□□■

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

the professor had a very unique way to teach it

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

yes every thing was clear

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

Strongly agrees with "The instructor's teaching in this course was effective."	□□□□■

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

I have good grasp on discrete mathematics and how to write proofs for different statements.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

The warmups helped us have a sound understanding of the lesson before going to class.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

It was for my major.

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

I attended about 50% of classes

Strongly agrees with "I learned a great deal in this course."	□□□□■

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

Professor Phil was effective in explaining new concepts and in facilitating the development of skills.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

Yes, the standards of evaluations were clear. It was in our syllabus from the first class.

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

None

Strongly agrees with "The instructor's teaching in this course was effective."	□□□□■

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

This course gave me a shallow understanding of various topics relevant to computing.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

The videos to prepare for the class were helpful but often could be long and pretty difficult to follow, making the warmups difficult. The labs felt like the way the math was connected to computing in the real world, but didn't feel relevant to the math we were learning in lectures.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

I took it solely because I was planning on going forward with the minor.

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

Attended almost all courses and spent about 6 hours a week on the course outside of class.

Neither agrees nor disagrees with "I learned a great deal in this course." □□■□□

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

Phil was effective when he was explaining topics, but I noticed the class could often be dragged into a specific question a student had and it didn't feel that important to the rest of the class.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

Yes.

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

Neither agrees nor disagrees with "The instructor's teaching in this course was effective." □□■□□

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

Students from previous classes told me they learned Induction for most of the Sem. This means we covered a lot!!! From permutations to probability and recurrence relations, I feel more prepared than ever for a major/minor in CS.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

The homework was a basis for our learning. The lectures were when I fortified those connections in my brain.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

Major/minor.

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

Normally, I would spend a great deal outside of class—around two hours for each warm-up, and around 5-to 8 hours for each lab.

Strongly agrees with "I learned a great deal in this course."	□□□□■

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

Phil is amazing! He is always there to help you but does not give answers away. You truly learn with him. If we are doing group work at the board and need his help, he will come and give slightly vague but very meaningful advice--that way we do other work ourselves.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

I would say yes, but sometimes the learning target system was too intense. I still need some learning targets that I made very small mistakes on before. In another class, I probably would have gotten an A on those assessments, with partial credit. But again, how will one's software work if there is a tiny error? Good points.

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

I would say, stick to the backward learning model. However, do not expect the students to spend a full class period outside of class to learn the material before completing the warm-ups. It can be too much at times.

Strongly agrees with "The instructor's teaching in this course was effective."	□□□□■

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

In this course, I've learned how to apply various math concepts, like probability and counting, to real-life situations and in coding. I've also learned different ways to prove my claims.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

I feel that class lectures on the material and class group work really helped me understand the best. The warmups were good first steps for understanding, but I often wouldn't be able to fully understand the concepts through the warmups. Labs were great to supplement the learning.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

I took this course to fulfill the major requirements for Computer Science.

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

I spent about 7-8 hours on warmups and labs per week in this class. I came to every class expect for days taken off for sickness.

Agrees with "I learned a great deal in this course." □□□■□

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

The instructor was great at explaining concepts in class and answering questions about the warmups. I feel like I would have benefitted from going over more example problems or group work in class.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

The quizzes were graded in a way that I understand and could be clear on. I believe the labs were graded to a standard I could understand, but I also found that standard to be too difficult to achieve the grades I'd been hoping to achieve.

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

Personally, I wasn't a big fan of the flipped classroom model. I struggle to learn through a youtube video or readings, and I often found myself struggling with the warmup, even if they were only based on completion. I understand the logic behind the flipped classroom, but I feel that it doesn't work well with my type of learning. The final grading scale was much more achievable than the original one, but I often found the lab's grading to be too difficult and I struggled to get anything above an R on my own without the specifics that a TA or Prof. Phil could point out for me. Because the labs often contain material and concepts that we don't specifically cover in class, I feel that making the grading easier would be helpful. Also, I feel that class time could be spent more effectively in really teaching the material to people who can't understand well just through the warmup. Overall, I enjoyed the class and was able to learn what I needed to for my future CS classes. Thank you for a good semester!

Agrees with "The instructor's teaching in this course was effective." □□□■□

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

I have learned of the math that exists within computer programs and functions and of its importance .

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

I was really supported by the learning structure and unique environment that was meant to not stress students out. However the tests did get to me as 5 was a way too many.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

I took this course to satisfy the minor requirement.

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

I went to 90-95% of lectures and did most of the warmups. It was a lot of work and because it was an 8:30 AM class it was especially hard but I tried my best to work through it.

Disagrees with "I learned a great deal in this course." □■□□□

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

Professor Chodrow was great at teaching and guiding us during class. He made it as enjoyable and interesting as possible. It is a shame he is stuck with math, I feel I would have really enjoyed his teaching more in a class about a different subject.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

The warmups and labs were great but the tests did nothing. They stressed me out and only went to prove my inability to take math tests. I freak out every time I sit down for a math test and this was no exception. I would spend multiple hours studying and attended way more classes than the average student only to bomb tests and feel terrible about myself. My academic self confidence has plummeted. I think I just have some kind of mental break when it comes to math.

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

I enjoyed the idea of learning targets.

Agrees with "The instructor's teaching in this course was effective." □□□■□

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

I have learned a lot about logic and especially proofs, and how to set them up and solve them in a mathematically stable way. This course definitely deepened my ability to problem solve, and think creatively about math.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

The lectures were very helpful as they informed about the readings done for homework, so if there were any difficult readings they were explained in class and thus my understanding stayed at a solid level throughout the course.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

I took this course for the major.

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

I had good participation in this class. I worked around 2-4 hours a week on homework and attended every class that I could.

Strongly agrees with "I learned a great deal in this course."	□□□□■

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

The instructor was very effective at teaching new concepts, such as Bayes' Theorem that was pretty confusing to me.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

Tests did provide an adequate opportunity to convey learning in the course. Standards of evaluation were clear.

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

Really good professor, would definitely recommend to anyone taking a computer science class.

Strongly agrees with "The instructor's teaching in this course was effective."	□□□□■

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

In this course, I learned a lot about the math behind computer science and why/how the math works using proofs techniques and labs. Aside from furthering my understanding of computer science concepts and coding skills, I was able to be more creative and communicative in the labs.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

Most of the learning in this course came from the video lectures and warm ups done before class. I felt that most of the instruction was forced upon the student to do themselves rather than having the concepts explained in a class. If there wasn't enough time to complete the warm up or watch the videos before class, it was really hard to understand what was going on that day in class. Lectures provided a good opportunity to deepen the concepts from the videos, only if the student had watched them. The labs were a good application as well, I just felt that sometimes they were more detached from the content than expected. The quizzes gave opportunity but I felt that their difficulty was inconsistent throughout the year.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

I took this course as part of my minor.

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

I think I did okay in this course. I worked about 4 hours a week outside of the class on videos, labs, and warm ups. I attended about 95% of the classes.

Agrees with "I learned a great deal in this course."	□□□■□

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

Professor Chodrow was good at expanding upon new concepts and creating discussion through groups within the class. I thought that assigning groups to work on boards during the class was a good way to not only talk about complicated problems but also meet new people in the computer science department. In general, Phil did a good job showing that the work we were doing is important. For example, with the gradient descent lab, he made an effort to point out its applications to AI.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

The quizzes gave some opportunity but I felt that they were a little unfair from the grading side. I would often study the warm ups to prepare for them and when I would arrive to take the quiz, it would be a harder question that I felt did not reflect what we went over in class. I wish there was partial credit to compensate for small mistakes that end up losing me the learning target. The standards of evaluation were somewhat clear, the grading scheme is still a little confusing. I'm not exactly sure what grade I'm lined up for because of this.

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

I would change the quizzes to include some partial points and possibly flip to do some lectures in the class. It was difficult to complete the material ahead of time sometimes and I feel that if we went over it in class more on the introducing concepts side, it would be accommadating for more people.

Agrees with "The instructor's teaching in this course was effective."	□□□■□

LEARNING: What have you learned from this course? Consider how the course deepened your critical or analytical abilities, factual knowledge, understanding of concepts, creativity, communication skills, and ability to pursue further work in the subject. Give concrete examples.

I ah learned proof techniques and discrete math, especially in its application to computer science.

COURSE CONTENT & FORMAT: How did the various components of the course contribute to your learning? Consider, as appropriate, lectures, readings, writing assignments, problem sets, films, labs, drills, studio work, debates, discussions, presentations, field work, or group work. Be specific.

The biggest contribution to my learning was the warm up problems.

COURSE CHOICE: Why did you take this course? Was it an elective or taken to satisfy a requirement? Is it in your major?

For my major

YOUR PARTICIPATION: How would you assess your own performance in the course? Approximately how many hours per week outside of class did you work? Estimate the percentage of classes that you attended.

went to most classes, could have spent more time doing the homework. probably between 5-10 hours of work per week.

Agrees with "I learned a great deal in this course." □□□■□

INSTRUCTION: How effective was the instructor in explaining new concepts, in facilitating the development of skills, in raising issues for discussion, and in enabling you to understand the course material and its significance? Provide examples.

The professor did not teach us new concepts, it was taught outside of class. For some of the more difficult problems/ concepts, it would have been helpful for him to put out a video that we could come back to and watch which explains it in a way that we are more familiar with from class.

ASSESSMENT: Did test/paper assignments and/or projects provide you adequate opportunity to convey the learning expected in the course? Were standards of evaluation clear?

Yes, although the Lab standards were sometimes difficult to discern.

CONCLUDING REMARKS: What comments would you make about maintaining or changing the course content and/or the instructor's methods of teaching? Comment on any aspects of the course, modes of teaching, or impact on your education that are not covered by the preceding questions.

I'm left feeling meh about the whole flipped classroom- although it was good to come to class with questions already prepared, it meant a lot more out of class work than I was anticipating, and it meant that when I was unable to do the work it was much more difficult to get something out of the class time. I appreciated how willing he was to have input from the students on how the class should be graded, but I think there ended up being slightly too many warm up drops. In terms of labs, it could have been fun to switch lab groups halfway through the semester, partially to get to know more people in the course, and especially for students who were unhappy with their initial lab group or had group members drop out of the class/ never show up. Other than that, I very much appreciate the system that was in place around the learning targets, as it is nice to not have the final be required, but more based on your own satisfaction with the learning that you have proven so far in the course.

Neither agrees nor disagrees with "The instructor's teaching in this course was effective." □□■□□