CSS 343 A
Data Structures, Algorithms, And Discrete Mathematics II
Course type: Face-to-Face

Taught by: Yusuf Pisan
Instructor Evaluated: Yusuf Pisan-T Prof

Evaluation Delivery: Online
Evaluation Form: A
Responses: 32/39 (82% very high)

Overall Summative Rating represents the combined responses of students to the four global summative items and is presented to provide an overall index of the class's quality:

Median	College Decile
2.9	**0**
(0=lowest; 5=highest)	(0=lowest; 9=highest)

Challenge and Engagement Index (CEI) combines student responses to several *IASystem* items relating to how academically challenging students found the course to be and how engaged they were:

CEI: 5.4
(1=lowest; 7=highest)

SUMMATIVE ITEMS

	N	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median	DECILE RANK Inst	DECILE RANK College
The course as a whole was:	32	6%	19%	41%	25%	9%		2.9	0	0
The course content was:	32	9%	22%	41%	22%	6%		3.0	0	0
The instructor's contribution to the course was:	32	12%	19%	34%	28%	6%		3.0	0	0
The instructor's effectiveness in teaching the subject matter was:	32	6%	16%	31%	38%	6%	3%	2.6	0	0

STUDENT ENGAGEMENT

Relative to other college courses you have taken:	N	Much Higher (7)	(6)	(5)	Average (4)	(3)	(2)	Much Lower (1)	Median	DECILE RANK Inst	DECILE RANK College
Do you expect your grade in this course to be:	32	3%	6%	25%	22%	25%	9%	9%	3.8	0	0
The intellectual challenge presented was:	32	28%	31%	19%	12%	9%			5.8	6	6
The amount of effort you put into this course was:	32	28%	38%	16%	16%	3%			5.9	6	6
The amount of effort to succeed in this course was:	32	31%	38%	16%	16%				6.0	7	7
Your involvement in course (doing assignments, attending classes, etc.) was:	32	19%	41%	12%	28%				5.7	4	4

On average, how many hours per week have you spent on this course, including attending classes, doing readings, reviewing notes, writing papers and any other course related work?

Class median: 10.2 Hours per credit: 2 (N=32)

Under 2	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22 or more
		9%	12%	19%	25%	6%	6%	12%		6%	3%

From the total average hours above, how many do you consider were valuable in advancing your education?

Class median: 7.2 Hours per credit: 1.4 (N=32)

Under 2	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22 or more
	9%	19%	25%	12%	19%		9%	6%			

What grade do you expect in this course?

Class median: 3.3 (N=32)

A (3.9-4.0)	A- (3.5-3.8)	B+ (3.2-3.4)	B (2.9-3.1)	B- (2.5-2.8)	C+ (2.2-2.4)	C (1.9-2.1)	C- (1.5-1.8)	D+ (1.2-1.4)	D (0.9-1.1)	D- (0.7-0.8)	E (0.0)	Pass	Credit	No Credit
9%	19%	31%	9%	6%	6%	12%				3%				3%

In regard to your academic program, is this course best described as:

(N=32)

In your major	A core/distribution requirement	An elective	In your minor	A program requirement	Other
94%	6%				

STANDARD FORMATIVE ITEMS

	N	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median	DECILE RANK Inst	DECILE RANK College
Course organization was:	30	10%	33%	30%	23%	3%		3.3	1	1
Clarity of instructor's voice was:	32	3%	16%	25%	34%	16%	6%	2.3	0	0
Explanations by instructor were:	31	6%	19%	32%	32%	6%	3%	2.8	0	0
Instructor's ability to present alternative explanations when needed was:	32	6%	9%	47%	22%	16%		2.8	0	0
Instructor's use of examples and illustrations was:	32	9%	16%	44%	25%	6%		2.9	0	0
Quality of questions or problems raised by the instructor was:	32	12%	16%	47%	22%	3%		3.0	0	1
Student confidence in instructor's knowledge was:	32	12%	19%	38%	28%	3%		3.0	0	0
Instructor's enthusiasm was:	32	16%	22%	44%	12%	6%		3.2	0	0
Encouragement given students to express themselves was:	32	12%	19%	44%	16%	6%	3%	3.1	0	0
Answers to student questions were:	32	12%	12%	44%	28%	3%		2.9	0	0
Availability of extra help when needed was:	32	9%	25%	31%	31%	3%		3.0	0	1
Use of class time was:	32	9%	22%	31%	22%	12%	3%	2.9	0	0
Instructor's interest in whether students learned was:	32	12%	19%	41%	19%	9%		3.0	0	0
Amount you learned in the course was:	32	12%	22%	44%	12%	9%		3.1	0	1
Relevance and usefulness of course content were:	32	12%	34%	25%	25%	3%		3.4	0	1
Evaluative and grading techniques (tests, papers, projects, etc.) were:	32	12%	25%	34%	22%	3%	3%	3.1	0	1
Reasonableness of assigned work was:	32	22%	22%	38%	19%			3.3	1	1
Clarity of student responsibilities and requirements was:	32	19%	28%	38%	16%			3.4	1	1

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STANDARD OPEN-ENDED QUESTIONS

Was this class intellectually stimulating? Did it stretch your thinking? Why or why not?

1. yes. The course requires many efforts to understand the concepts and code practices to verify your understandings. In many cases, only practices could clarify the flaws in your rough thinking.

2. Not at all.

3. Yes, i learned the core things from this class

4. some of the topics and assignments were pretty interesting and challenging

6. Very, the material was fun to learn and challenging

7. The class was fairly difficult. The projects were fun, but very tedious. The amount of work I put into the class felt tremendous compared to other classes. The exams were fair and I felt as though there wasn't anything I didn't expect.

8. Yes for sure it made you think about things that usually the average person would not regard and think about subconsciously.

9. Yes it was stimulating and it stretched my thinking because the class course topics were difficult.

10. yes, very difficult class. coding the projects were very hard and took a lot more time than expected

11. This class was intellectually stimulating. Sometimes I did feel sort of tired of it because of the constant LeetCode. I didn't mind it, it was just that when he wrote out the solution, he didn't explain well enough what he did and why he did it. During lectures though, it was good. I liked the slideshow and writing out diagrams and examples on the board as well so I was able to really follow along.

12. Yes, the problems used were relevant and interesting.

14. Yes this class was intellectually stimulating. There was many abstract concepts to learn and materialize. the leetCode problems also encouraged problem solving and critical thinking.

15. Yes this class was intellectually stimulating because it poses concepts that I have never discussed in a previous class. The projects especially stretched my thinking.

17. The course was definitely intellectually stimulating. The course content, while heavy, was still very relevant and very understandable, assuming you put it in the required effort to understand.

18. yes, very hard

19. Yes

What aspects of this class contributed most to your learning?

1. LeetCode practices. It expanded my thoughts about how to resolve a problem. There are many approaches, utilizing different data structures and algorithms, once you understand the root logic, all solutions seem reasonable.

2. Hash functions - something new I learned.

3. Projects

4. assignments, coding projects

6. All of it

7. I think the projects really helped.

8. Helped me understand the lower level stuff of how all these data structures work and for what problems.

9. Study guide

10. Lectures and inclass excersices. class recordings VERY helpful. thank you for doing that.

11. The aspects of this class that contributed most to my learning were actually the lectures and the exams. The lectures done in class as well as the examples on the board made some of the concepts easier to understand. And when it came time to do exams, I really had to study and continue to learn and memorize the concepts.

12. Going to class and the exams contributed the most. I think the exams influenced me the most because I felt they were the right difficulty and ensured I would study.

14. The leet codes and data structures contributed the most. Projects did as well some abstract stuff not so much but it is good to have a general understanding of it.

15. The coding projects.

17. The content itself, as well as the tools used to help assist with that content definitely contributed the most. LeetCode, while difficult, is and always will be an effective tool for programming classes, and the use of visual aids like slides or visualization tools for certain data structures is great.

18. reviews, posted slides

19. Example problems

What aspects of this class detracted from your learning?

1. reading materials are tough

2. This class as a whole.

3. nothing in mind

4. attending class, lectures are extremely boring

5. Aside from listing LeetCode problems, the study guide for exam preparation didn't very helpful.

6. None.

7. The professors clarity and ability of explain subjects were really unclear. The lectures sucked and the professor could be more clear in expectations. The last project, movies, felt really open ended, which I understand, but there could've been a more useful guide. The study guides also sucked terribly.

8. I think we spent too much class time on irrelavent things. Sometimes an hour was just being stuck on the LeetCode and no one else was engaged.

9. teacher lecture pace too fast

10. I think sometimes we would do a pretty hard leetcode and it would take more than half the classtime, which I dont think is worth it. I would rather have that time for lecture.

11. Some aspects of this class that detracted from my learning were some of the LeetCode problems. Other LeetCode problems were great to do, because it had to do with what we were learning that day. But some other LeetCode problems made me confused because it was either something that we weren't learning that day, or just something new entirely.

12. Sometimes class time would feel less engaging or would not be used effectively.

13. I really did not like the idea of participation. I believe our grade should not depend on whether we sat in class for 4 hours a week or not.

14. Sometimes the amount of time spent on 1 leetcode problem or at the beginning of the quarter the YouTube videos that were played were a waste of time.

15. Some of the pre-recorded lectures we watched in class seemed kind of redundant.

16. The leetcodes during the first half of the quarter were actually pretty helpful but I feel like having any leetcode during the second half of the quarter and needing to study it for the final didn't really make sense. I would've preferred some assignments that were more directly related to the content we were learning.

17. Lectures if anything were detracted from learning the most. Programming theory can be become very dragging across a 2 hour period without a break most of the time.

18. effort

19. Lectures

What suggestions do you have for improving the class?

1. the on class Leetcode practice is excellent to demonstrate how data structure and algorithms could be applied to different scenarios. If instructor could have provided more off-class Leetcode problems list left to students to practice corresponding concepts taught in class, that would be perfect.

2. Remove the class

3. the exam were kinda hard and the leetcode questions were too much

5. If it possible, if make a small mistake in the process during the exam, don't - 3 point on it, that's a lot.

6. None, it is very challenging but the instructor has lots of opportunities for extra help and gives a good amount of time to complete assignments.

7. Extra study sessions would be highly appreciated. The fact we lost a few days to match the T/Th section felt a little frustrating. Also have better study guides. More practice questions.

8. More visuals, I think using stories as well and examples that students will be interested in will help a lot more with engagement.

9. More organized study guides, focusing more on what will be on the exam. Professor spent a lot of time, up to almost an hour debugging in-class leetcode question and tries to explain himself fixing the problem and doesn't explain in depth. Students easily get lost and stop paying attention after certain point.

10. maybe more worked out solutions on slides

11. Some suggestions that I have for improving the class is only just the final exam. When reading the final exam study guide, he had recommended at least 3 weeks of studying. However, he only released the study guide a week and a half before the exam. If he, himself, recommends 3 weeks, how come he released the study guide a week and a half before? Are we supposed to cram 3 weeks of studying into a week and a half? That's the only improvement is just releasing study guides early. The final exam also didn't have as much prep as the midterm. For the midterm, there were optional Canvas quizzes that we could do to practice. For the final exam, there weren't any of those. We also did a LeetCode Docs with other students in the class, to be able to understand the LeetCode problems in class better. But we didn't do that this time for the final exam. The midterm also had sample problems that were similar to the real questions on canvas, but for the final, there wasn't that. Just AI generated questions that had to do with the topics.

12. Not much, just prioritize the course content over LeetCode time more often. This may be recency bias, however.

14. Professor to be more kind to students, have the YouTube videos as just a reference spend more time reviewing exam concepts.

15. Using up some of the extra class time we have at the end of class to answer questions.

17. I'd say lectures, and maintaining a consistent flow with them. Like mentioned earlier, programming and theory related content can become very dragging across a 2 hour period, and things like breaks and consistent lecture structure can help with that

18. more groupwork

19. Better lectures

IASystem Course Summary Reports summarize student ratings of a particular course or combination of courses. They provide a rich perspective on student views by reporting responses in three ways: as frequency distributions, average ratings, and either comparative or adjusted ratings. Remember in interpreting results that it is important to keep in mind the number of students who evaluated the course relative to the total course enrollment as shown on the upper right-hand corner of the report.

Frequency distributions. The percentage of students who selected each response choice is displayed for each item. Percentages are based on the number of students who answered the respective item rather than the number of students who evaluated the course because individual item response is optional.

Median ratings. *IASystem* reports average ratings in the form of item medians. Although means are a more familiar type of average than medians, they are less accurate in summarizing student ratings. This is because ratings distributions tend to be strongly skewed. That is, most of the ratings are at the high end of the scale and trail off to the low end.

The median indicates the point on the rating scale at which half of the students selected higher ratings, and half selected lower. Medians are computed to one decimal place by interpolation.[1] In general, higher medians reflect more favorable ratings. To interpret median ratings, compare the value of each median to the respective response scale: *Very Poor, Poor, Fair, Good, Very Good, Excellent (0-5); Never/None/Much Lower, About Half/Average, Always/Great/Much Higher (1-7); Slight, Moderate, Considerable, Extensive (1-4).*

Comparative ratings. *IASystem* provides a normative comparison for each item by reporting the decile rank of the item median. Decile ranks compare the median rating of a particular item to ratings of the same item over the previous two academic years in all classes at the institution and within the college, school, or division. Decile ranks are shown only for items with sufficient normative data.

Decile ranks range from 0 (lowest) to 9 (highest). For all items, higher medians yield higher decile ranks. The 0 decile rank indicates an item median in the lowest 10% of all scores. A decile rank of 1 indicates a median above the bottom 10% and below the top 80%. A decile rank of 9 indicates a median in the top 10% of all scores. Because average ratings tend to be high, a rating of "good" or "average" may have a low decile rank.

Adjusted ratings. Research has shown that student ratings may be somewhat influenced by factors such as class size, expected grade, and reason for enrollment. To correct for this, *IASystem* reports **adjusted medians** for summative items (items #1-4 and their combined global rating) based on regression analyses of ratings over the previous two academic years in all classes at the respective institution. If large classes at the institution tend to be rated lower than small classes, for example, the adjusted medians for large classes will be slightly higher than their unadjusted medians.

When adjusted ratings are displayed for summative items, **relative rank** is displayed for the more specific (formative) items. Rankings serve as a guide in directing instructional improvement efforts. The top ranked items (1, 2, 3, etc.) represent areas that are going well from a student perspective; whereas the bottom ranked items (18, 17, 16, etc.) represent areas in which the instructor may want to make changes. Relative ranks are computed by first standardizing each item (subtracting the overall institutional average from the item rating for the particular course, then dividing by the standard deviation of the ratings across all courses) and then ranking those standardized scores.

Challenge and Engagement Index (CEI). Several *IASystem* items ask students how academically challenging they found the course to be. *IASystem* calculates the average of these items and reports them as a single index. *The Challenge and Engagement Index (CEI)* correlates only modestly with the global rating (median of items 1-4).

Optional Items. Student responses to instructor-supplied items are summarized at the end of the evaluation report. Median responses should be interpreted in light of the specific item text and response scale used (response values 1-6 on paper evaluation forms).

[1] For the specific method, see, for example, Guilford, J.P. (1965). Fundamental statistics in psychology and education. New York: McGraw-Hill Book Company, pp. 49-53.