

CSS 343 B  
Data Structures, Algorithms, And Discrete Mathematics II  
Course type: Online  
Taught by: Yusuf Pisan  
**Instructor Evaluated: Yusuf Pisan-Other**

Evaluation Delivery: Online  
Evaluation Form: I  
Responses: 15/45 (33% moderate)

**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:

<b>Median</b> <b>4.1</b> (0=lowest; 5=highest)	<b>College Decile</b> <b>4</b> (0=lowest; 9=highest)
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**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:

<b>CEI: 5.4</b> (1=lowest; 7=highest)
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### SUMMATIVE ITEMS

	N	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median	DECILE RANK Inst College	
The distance learning course as a whole was:	15	33%	20%	27%	7%	7%	7%	3.7	2	3
The course content was:	15	40%	27%	20%	13%			4.1	4	5
The instructor's contribution to the course was:	15	47%	27%	20%	7%			4.4	4	4
The effectiveness of the distance learning format was:	15	40%	20%	13%	13%	7%	7%	4.0	3	4

### STUDENT ENGAGEMENT

	N	Much Higher (7)	(6)	(5)	Average (4)	(3)	(2)	Much Lower (1)	Median	DECILE RANK Inst College	
<b>Relative to other college courses you have taken:</b>											
Do you expect your grade in this course to be:	15	13%	20%	20%	33%		7%	7%	4.7	2	3
The intellectual challenge presented was:	15	53%	7%	40%					6.6	9	9
The amount of effort you put into this course was:	15	40%	20%	20%	20%				6.0	7	7
The amount of effort to succeed in this course was:	15	47%	13%	20%	20%				6.2	8	8
Your involvement in course (doing assignments, attending classes, etc.) was:	15	33%	33%	13%	13%	7%			6.0	6	6

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: 12.0 Hours per credit: 2.4 (N=14)**

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
		7%	7%	7%	21%	29%		21%			7%

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

**Class median: 8.5 Hours per credit: 1.7 (N=14)**

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
	14%	14%	14%	14%	7%	21%	7%				7%

What grade do you expect in this course?

**Class median: 3.6 (N=14)**

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
21%	36%	14%	7%	7%								14%		

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

**(N=14)**

In your major	A core/distribution requirement	An elective	In your minor	A program requirement	Other
86%	14%				

**STANDARD FORMATIVE ITEMS**

	N	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median	DECILE RANK	
									Inst	College
The helpfulness of the distance learning staff overall was:	14	57%	14%	14%	7%	7%		4.6	7	
Student confidence in instructor's knowledge was:	15	73%	20%	7%				4.8	7	7
Timeliness of instructor response to assignments was:	15	40%	33%	20%	7%			4.2	3	4
Quality/helpfulness of instructor feedback was:	15	40%	27%	7%	20%	7%		4.1	3	4
Tailoring of instruction to varying student skill levels was:	15	20%	40%	27%	13%			3.8	1	
Clarity of course objectives was:	15	27%	40%	20%	13%			3.9	2	3
The organization of the study guide was:	14	50%	29%	14%	7%			4.5	4	
Content of the study guide was:	14	43%	29%	29%				4.2	2	
Relevance of textbook for self-study was:	15	20%	27%	40%		13%		3.4	0	
Usefulness of reading assignments in understanding course content was:	14	36%	29%	36%				4.0	4	5
Usefulness of written assignments in understanding course content was:	14	29%	43%	21%	7%			4.0	3	4
Usefulness of video media in understanding course content was:	14	50%	14%	36%				4.5	4	
Usefulness of online resources in understanding course content was:	14	43%	21%	36%				4.2	4	4
Usefulness of audio media in understanding course content was:	14	36%	29%	36%				4.0	1	
Relevance and usefulness of course content were:	15	33%	27%	40%				3.9	2	2
Evaluative and grading techniques (tests, papers, projects, etc.) were:	15	33%	13%	47%	7%			3.4	1	2
Reasonableness of assigned work was:	15	27%	33%	13%	27%			3.8	2	3
Clarity of student responsibilities and requirements was:	15	33%	20%	33%		7%	7%	3.7	1	2

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## STANDARD OPEN-ENDED QUESTIONS

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

1. I am very happy that this class covered priority queues in-depth and touched on design principles a little bit. Both were topics I have been struggling with in the past and was hoping this class would cover. I also think the state machines in this class are very interesting but have a tough time visualizing how to program it. Wonderful class and I only wish we had more assignments to better understand the information, but that may be asking too much for other students.
2. Yes it did
3. This class was difficult, I certainly did find parts of it stimulating and found myself wanting to learn more about it, but not particularly in this learning environment in this way.
4. Yes, I learned a lot in this course and was exposed to a bunch of new concepts.
6. Yes, lots of extra activities that was made required for us to stretch out thinking such as LeetCode.
8. Yes, because i am still fairly new to C++, so things i learned in this class were making me think to understand the concept
11. Yeah, the projects we intense.

### What aspects of this class contributed most to your learning?

1. Assignments, especially the graph project, help a lot in contributing to my learning. Overall, if I am programming what is taught in the class I understand the topic nearly 100%. I would go far as to say if I didn't program it, I didn't actually learn it. For example, since I programmed Dijkstra's algorithm I feel like I understand it well, but finite state machines I don't feel like I could use them yet.
2. The Leetcode questions on exam
3. What contributed the most was the ability to do assignments with a partner, but at the same time I was incredibly lucky because we both put in the effort on our part. Another part that contributed the most was the material quantity felt a bit more digestible, it did not feel (all the time) like I had to learn an incredible amount of material in such a short time and immediately apply it. It felt properly spaced out.
4. I'd say everything was equally important.
6. The Projects, and LeetCode
8. Break out room activities
11. Lectures and slides

### What aspects of this class detracted from your learning?

1. The only thing would be online learning makes it more difficult to focus and participate in class. This is only a minor issue though.
2. The part when we started learning finite machines
3. Teaching online. Online teaching is most likely just as difficult as online learning, and I found that I quickly got lost and could not follow the material. Another part that detracted from my learning was the applications of what we learned, I felt like after a lecture I had to spend another lecture's worth of time to properly teach myself and understand because I could simply not follow along the class.
6. Clang Tidy, Clang Format
8. Nothing class related detracted from my learning
10. We spent a lot of time talking about abstract concepts and not much time applying them to code. While we did learn about different data structures, algorithms, and polymorphism, we didn't learn about them in the context of C++, which makes it really challenging to do the homework assignments. I am paying to learn about these different languages, I should NOT have to resort to Googling half of the material because it wasn't gone over in class.
11. Not sure

### What suggestions do you have for improving the class?

1. Although I still have 2 weeks until finals, I kind of feel as if the last half of the course doesn't have as many assignments and overall feels kind of vague for me. While the movie project is a good step to understanding the design aspect, I kind of feel it only touches a very small portion of what was taught in the lectures. I also wish we had an assignment related to programming state machines. The best way to learn is to implement! Although I understand some students may not like that due to it being difficult on time.
2. Make an alg class for UWB
3. I think an alternative to lecture and then one breakout, and reviewing the problem, having a much more interactive lecture with frequent check ins is useful. I have only had 2 professors do this, but they had very engaging lectures where there were very frequent polls an simple questions. This made it such that we could ensure that we understood the concepts simply, and only then did we move on to the more complex applications and/or concepts.

6. get rid of Clang Tidy and Clang format

8. N/A

10. Provide more, small scale assignments instead of few large assignments that make up 40% of our grade. I struggled with mental health this quarter and was unable to complete one of the assignments, which is significantly bringing my grade down. 1 assignment should not have the power to potentially make me fail this course.

11. None I can think of

### **INSTRUCTOR-ADDED OPEN-ENDED QUESTIONS**

#### **What advice would you give to a student taking this course that will help them succeed?**

1. Start early on assignments, be sure to study lecture items that were not in the assignments, and the difficulty of the class is worth it for what you learn.
2. Study study study!
3. If I had to give advice, I would say do NOT take this class with another "difficult" class because although it may seem like a normal class to keep up with, you have to spend a decent amount of time ensuring that you've properly understood the concepts through external resources. Another piece of advice, meet and interact with others, finding a partner who is just as hardworking as you are will lead to a better understanding of the homework and not feel as stressful and overwhelming.
5. Start homework early, don't skip class.
6. Make sure you know what clang tidy and clang format is,
7. Do some out of class research on topics.
8. understand the concept well
9. Start assignment early. Make sure understand the material, and ask for help.
10. Learn how to effectively google search. And take care of your mental health, this class is unnecessarily difficult and stressed me out multiple times.
11. Work on projects early

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.<sup>1</sup> 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).

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<sup>1</sup> 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.