COURSE SUMMARY REPORT
Numeric Responses
University of Washington, Bothell
Science, Tech, Engr. \& Math
Term: Winter 2023

CSS 342 B
Data Structures, Algorithms, And Discrete Mathematics I
Course type: Face-to-Face

Evaluation Delivery: Online
Evaluation Form: A
Responses: 19/26 (73\% very high)

Taught by: Yusuf Pisan
Instructor Evaluated: Yusuf Pisan-Other
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 |
| :---: | :---: |
| 4.5 | 6 |
| (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: 5.8
(1=lowest; 7=highest)

## SUMMATIVE ITEMS

|  | N | Excellent <br> (5) | Very Good (4) | Good (3) | Fair (2) | Poor <br> (1) | Very Poor (0) | Median | DECILE RANK Inst College |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| The course as a whole was: | 19 | 53\% | 32\% | 5\% | 11\% |  |  | 4.5 | 6 | 7 |
| The course content was: | 19 | 47\% | 32\% | 5\% | 16\% |  |  | 4.4 | 5 | 6 |
| The instructor's contribution to the course was: | 19 | 53\% | 32\% | 11\% | 5\% |  |  | 4.5 | 4 | 5 |
| The instructor's effectiveness in teaching the subject matter was: | 19 | 47\% | 26\% | 16\% | 5\% | 5\% |  | 4.4 | 4 | 6 |

## STUDENT ENGAGEMENT

| Relative to other college courses you have taken: | $\mathrm{N} \xlongequal{\substack{\text { Much } \\ \text { Higher } \\(7)}}$ |  | (6) | (5) | Average <br> (4) | (3) | (2)Much <br> Lower <br> (1) |  | Median | DECILE RANK Inst College |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Do you expect your grade in this course to be: | 19 | 26\% | 32\% | 5\% | 26\% | 11\% |  |  | 5.8 | 7 | 8 |
| The intellectual challenge presented was: | 19 | 21\% | 47\% | 32\% |  |  |  |  | 5.9 | 7 | 6 |
| The amount of effort you put into this course was: | 19 | 32\% | 47\% | 11\% | 5\% | 5\% |  |  | 6.1 | 7 | 7 |
| The amount of effort to succeed in this course was: | 19 | 53\% | 32\% | 11\% | 5\% |  |  |  | 6.5 | 9 | 9 |
| Your involvement in course (doing assignments, attending classes, etc.) was: | 19 | 37\% | 37\% | 11\% | 11\% | 5\% |  |  | 6.1 | 7 | 7 |

On average, how many hours per week have you spent on this course,
Class median: 9.8 Hours per credit: 2 ( $\mathrm{N}=19$ ) including attending classes, doing readings, reviewing notes, writing papers and any other course related work?


COURSE SUMMARY REPORT

## STANDARD FORMATIVE ITEMS

|  | N | Excellent <br> (5) | Very Good (4) | Good <br> (3) | Fair <br> (2) | Poor (1) | $\begin{aligned} & \text { Very } \\ & \text { Poor } \\ & (0) \end{aligned}$ | Median | DECILE RANK Inst College |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Course organization was: | 19 | 58\% | 32\% | 5\% |  | 5\% |  | 4.6 | 7 | 8 |
| Clarity of instructor's voice was: | 19 | 47\% | 16\% | 32\% | 5\% |  |  | 4.3 | 3 | 5 |
| Explanations by instructor were: | 19 | 42\% | 47\% | 5\% | 5\% |  |  | 4.3 | 4 | 6 |
| Instructor's ability to present alternative explanations when needed was: | 19 | 53\% | 32\% | 11\% | 5\% |  |  | 4.5 | 5 | 7 |
| Instructor's use of examples and illustrations was: | 19 | 53\% | 37\% | 5\% |  | 5\% |  | 4.5 | 5 | 6 |
| Quality of questions or problems raised by the instructor was: | 19 | 53\% | 32\% | 5\% | 11\% |  |  | 4.5 | 6 | 7 |
| Student confidence in instructor's knowledge was: | 19 | 68\% | 16\% | 5\% | 11\% |  |  | 4.8 | 6 | 6 |
| Instructor's enthusiasm was: | 19 | 63\% | 21\% | 16\% |  |  |  | 4.7 | 5 | 6 |
| Encouragement given students to express themselves was: | 19 | 42\% | 32\% | 11\% | 16\% |  |  | 4.2 | 3 | 4 |
| Answers to student questions were: | 19 | 37\% | 47\% | 5\% | 11\% |  |  | 4.2 | 3 | 4 |
| Availability of extra help when needed was: | 19 | 42\% | 37\% | 16\% | 5\% |  |  | 4.3 | 3 | 4 |
| Use of class time was: | 19 | 42\% | 32\% | 16\% | 5\% | 5\% |  | 4.2 | 4 | 5 |
| Instructor's interest in whether students learned was: | 19 | 53\% | 16\% | 21\% | 11\% |  |  | 4.5 | 4 | 5 |
| Amount you learned in the course was: | 19 | 53\% | 21\% | 16\% | 11\% |  |  | 4.5 | 6 | 7 |
| Relevance and usefulness of course content were: | 19 | 58\% | 26\% | 11\% | 5\% |  |  | 4.6 | 6 | 6 |
| Evaluative and grading techniques (tests, papers, projects, etc.) were: | 19 | 47\% | 21\% | 21\% | 5\% | 5\% |  | 4.4 | 4 | 5 |
| Reasonableness of assigned work was: | 19 | 53\% | 32\% | 16\% |  |  |  | 4.5 | 5 | 6 |
| Clarity of student responsibilities and requirements was: | 19 | 42\% | 42\% | 16\% |  |  |  | 4.3 | 4 | 5 |


| CSS 342 B | Evaluation Delivery: Online |  |
| :--- | ---: | :--- |
| Data Structures, Algorithms, And Discrete Mathematics I | Evaluation Form: A |  |
| Course type: Face-to-Face | Responses: $19 / 26$ (73\% very high) |  |
| Taught by: Yusuf Pisan |  |  |
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## STANDARD OPEN-ENDED QUESTIONS

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

1. The homeworks themselves were quite stimulating, as some posed as quite challenging. Although, the ideas were already learned through pass CS classes. I just had to adjust to the new syntax of C++ from Java.
2. Yes
3. This is the second time I am taking 342 with different professors, so I had a chance to compare the professionalism of two. During the whole quarter Yusuf Pisan keeps demonstrating that he cares about his lectures, content and about students. I am happy to take more classes with him next quarter for 343 and interested into other classes that he teaches.
4. Yes
5. The class was stimulating and stretched my thinking. It made me question the concepts we learned in class and how it works as compared to previous courses.
6. Yes and yes.
7. Problem-solving techniques and logic.
8. Yes. The more material we covered, the more useful I felt when writing code.
9. This class definitely stretched my thinking. Since the professor expects you to know much of what is being taught in class it makes this course very independent.
10. Yes, it stretched my thinking since the teachers give different ways of approaching a leet code question based on efficiency.
11. yes because it was based on topics that interested me and would further my learning.
12. yes in different way to thinking about the C++
13. The class content was great, and the instructor covered an enormous amount of material given the time constraints. The class was very challenging but stimulating as we had lots of opportunities to use the content.
14. Yes, the problems the professor provided were challenging. He had us think about our answers before providing the answers.
15. Yes it was, I learned a new language and new ways to solve problems.

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

1. Most likely the homeworks.
2. Avaliable online, active discord, notes on test
3. Theory is hard and easy forget if there is no practice. During classes we do tasks on our own to understand our current abilities and focus more on improvements. C++ does not seem hard until you focus on your own code.
4. Coding assignment \& in-class leet code practice
5. The class lectures, readings, and leetcode contributed most to my learning.
6. The project
7. Projects and leetcode tasks
8. Projects and Leetcode exercises were excellent.
9. The weekly projects definitely made me learn a lot more throughout the process of completing each of them.
10. Leetcode questions, lecture slides, exam reviews
11. The course material and teacher.
12. team mate work which is helping me thinking about how it could work better
13. The professor was very helpful and gave in-depth explanations during the lecture portion of the class.
14. When he actually lectured with slides given teaching us the different aspects of C++.
15. The coding itself and leetcode problems.

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

1. Nothing
2. none
3. N/A
4. Nothing detracted from my learning.
5. Long story
6. clang formatting
7. Often we had lecture material with no exercises, and I worry that I will not remember that lecture material as well as when I have an exercise.
8. n/a
9. N/A
10. Nothing.
11. The way we thinking about the coding
12. Nothing, the class was very well structured to combine lecturing and activities to practice applying the material.
13. Too much leet coding.
14. The lecturing could have been better.

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

1. Maybe focus on more critical thinking within class, I do like the idea of doing leetcode, but I do think that covering more examples and covering C++ would've helped. Although most of my coding skills were already evolved through 142 and 143, so C++ was more or less a review of 142 with a new language. I do think that the class should focus a lot more on memory management, pointer manipulation, as well as covering discrete math more.
2. Since each test question is about 10 points, missing a single question tanks your grade significantly.
3. none
4. the audio of the recording is not very well, it doesn't catch the instructor's voice all the time
5. Don't have any other suggestions.
6. Nothing
7. everything was fine, clang is a very arguable thing so I won't suggest changing it.
8. Have more paper based exercise while keeping the same number of computer based exercises.
9. n/a
10. N/A
11. Nothing.
12. No very good class
13. The in-class exercises are great, although I think the professor could spend more time going over the solutions, especially for the problems where many people are struggling to find the answer.
14. Use the whiteboard more! Writing code in an editor is less important than understanding the concepts of data structures! It would be really nice if you used the whiteboard more and were able to draw more about how each data algorithm works/problems from leetcode. I do not care about the solution for the leetcode problem - there is nothing to learn when you already have the solution. Instead of giving us the leetcode answer, it would be nice if you would work through the problem. Talk about what parts of the leetcode problem makes you think to use one data structure over another, talk about the possible pitfalls, etc
15. Instead of having so much leet code problems that had nearing nothing to do with our homeworks, create or provide problems that could be similar to parts of our homeworks.
16. Improvement on lectures as well as clarifying assignments.

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).

[^0]
[^0]:    ${ }^{1}$ 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.

