IASystem
The Course Evaluation Standard

COURSE SUMMARY REPORT
Numeric Responses

University of Washington, Bothell
Sci, Tech, Engr. & Math
Science, Tech, Engr. & Math
Term: Winter 2020

CSS 390 A
Special Topics
Course type: Face-to-Face

Evaluation Delivery: Online
Evaluation Form: D
Responses: 14/25 (56% high)

Taught by: Yusuf Pisan
Instructor Evaluated: Yusuf Pisan-Lecturer

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
3.8	**3**
(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: 5.0
(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	College
The course as a whole was:	14	21%	43%	14%	21%			3.8	3	3
The course content was:	14	29%	36%	21%	14%			3.9	3	3
The instructor's contribution to the course was:	14	29%	36%	21%	14%			3.9	2	2
The instructor's effectiveness in teaching the subject matter was:	14	14%	43%	21%	21%			3.7	2	2

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	College
Do you expect your grade in this course to be:	14	7%	14%	29%	43%	7%			4.5	2	3
The intellectual challenge presented was:	14	21%	36%	21%	14%	7%			5.7	5	4
The amount of effort you put into this course was:	14	21%	29%	21%	21%	7%			5.5	3	3
The amount of effort to succeed in this course was:	14	14%	29%	21%	29%	7%			5.2	2	2
Your involvement in course (doing assignments, attending classes, etc.) was:	14	21%	29%	21%	21%	7%			5.5	2	3

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: 12.8 Hours per credit: 2.6 (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%		21%	7%	21%	21%	14%		7%	

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

Class median: 10.5 Hours per credit: 2.1 (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%	14%	29%		21%	7%	21%			

What grade do you expect in this course?

Class median: 3.4 (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
14%	29%	36%	14%		7%									

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
43%		57%			

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:	14	36%	36%	14%	14%			4.1	4	5
Sequential presentation of concepts was:	14	43%	36%	7%	14%			4.3	6	6
Explanations by instructor were:	14	21%	43%	29%	7%			3.8	2	3
Instructor's ability to present alternative explanations when needed was:	14	14%	43%	29%	14%			3.7	2	2
Instructor's use of examples and illustrations was:	14	36%	43%	7%	7%	7%		4.2	3	4
Quality of questions or problems raised by the instructor was:	14	43%	36%	7%	14%			4.3	4	5
Contribution of assignments to understanding course content was:	13	46%	23%	15%	8%	8%		4.3	5	6
Instructor's enthusiasm was:	14	64%	21%		7%	7%		4.7	5	5
Instructor's ability to deal with student difficulties was:	14	50%	21%	14%	7%	7%		4.5	6	6
Answers to student questions were:	14	36%	36%	14%	7%	7%		4.1	3	4
Availability of extra help when needed was:	14	57%	14%	21%	7%			4.6	6	6
Use of class time was:	14	43%	21%	14%	21%			4.2	4	4
Instructor's interest in whether students learned was:	14	57%	21%	14%		7%		4.6	5	6
Amount you learned in the course was:	14	21%	50%	14%	7%	7%		3.9	3	3
Relevance and usefulness of course content were:	14	36%	43%		14%	7%		4.2	3	4
Evaluative and grading techniques (tests, papers, projects, etc.) were:	14	43%	21%	21%	7%		7%	4.2	4	5
Reasonableness of assigned work was:	14	29%	29%	43%				3.8	2	3
Clarity of student responsibilities and requirements was:	14	43%	36%	14%	7%			4.3	4	5

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STANDARD OPEN-ENDED QUESTIONS

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

1. i mean, i learned what i signed up for. it was an interesting class.

2. yes

3. Yes, had never encountered concepts of artificial intelligence.

4. Yes, especially when resetting students' expectations of what artificial intelligence is

5. Yes, as I have been interested in artificial intelligence subjects for quiet some time, getting a detailed experience was very useful.

6. Yes, it honestly felt a bit overwhelming for an intro class. It felt like you expected us to pick up the content faster than we were (not your fault).

7. This class covered concepts introduced in CSS 343 such as Depth First Search and Breadth First Search algorithms as well as the concept of Graphs. These concepts are fairly related, though when combined with AI behavior and decision making, it challenges students to apply these abstract problems to real-world applications. For students unfamiliar with the Python language, too, this course can be challenging as not much class time is spent educating students in Python.

8. It was interesting to learn at a fairly in-depth level about various searching algorithms.

9. Yes, the course was intellectually stimulating and stretched my thinking. As a senior, I have found that there is overlap between some of the CS courses, which sequential material should have, but at times I have felt that there is too much overlap. I felt like this course was unique in its own way and deserves a place as an elective in the CS curriculum. Professor Pisan gracefully took on this class with great stride. Although at times I felt like he was furthering his learning with us, in a way it contributed to the course being able to struggle and persevere together.

What aspects of this class contributed most to your learning?

1. Great lectures Good hw packets to conceptualize mathy stuff

3. The fact that the course concepts were taught through the development of videogames.

4. The assignments and the homework exercises done in class together.

5. The assignments and worksheets contributed the most.

6. Doing practice problems together.

7. The reading was closely related to the material being covered in the slides, so reading chapters before class offered a cemented understanding of the material. Pisan was enthusiastic about the material and did a good job keeping me engaged with his lectures by providing thorough explanations and encouraging students to reach out to him during office hours if they still had trouble with concepts so that in-class time wasn't spent entirely on one problem. The homework packets and programs, too, directly related with the concepts being covered and challenged students to apply the material that was covered to a range of problems.

8. Practicing with search algorithms helped my brain to understand better how such algorithms work. This will help me when working with similar type problems in the future, both in interviews and in industry.

9. Aspects that contributed most to my learning in this class is the extensive examples that Professor Pisan provided and explained in detail. He took on every question regarding the examples he provided, including the class exercises (which were also of great help), and did not ever come off as feeling overwhelmed by the amount of questions or burdened by reexplaining confusing topics. Professor Pisan is a very enthusiastic and supportive professor.

What aspects of this class detracted from your learning?

1. All the winter stuff getting in the way of classes :(really wish there'd been a readme for the pacman projects or smth. i spent a long time just tracking down how to use stuff.

3. I didn't really get that much from the take-home paper homework. They were significantly more difficult than the general concepts taught in class and you couldn't check if what you were doing was correct. Not being able to know how I was doing in the beginning of those assignments wasn't great because many of the questions built on each other.

4. Too high expectations of what students would be learning. A lot of content was cut back and it affected the schedule of the class and assignments.

5. nothing

6. A lot of the worksheets felt much harder to understand than the practice problems we were doing together in class beforehand.

7. Having to work on challenging programs was difficult, though when having to write them as well as understand how to write them in Python without any Python experience added an extra layer of difficulty. While I was able to complete these programs with no prior Python experience, having perhaps one lecture oriented towards educating students with Python would've been helpful. There was an intro to Python assignment at the beginning of the course, though I think an actual lecture would've been helpful to me--however students already familiar with Python would most likely not need something like this.

9. Aspects that detracted most from my learning was the pace. I am aware that this quarter has been one of the weirder ones (time off due to snow and then time off due to the Covid-19 pandemic), but there were times where I felt like we reviewed too much and other times where I felt like I needed to re watch the lecture because it went by so fast. I think that Professor Pisan can improve by adjusting the pace.

What suggestions do you have for improving the class?

1. there were some kinks but i think that was just from it being a newer course and winter getting in the way, so not really

3. Re-make of the take-home homework, day-of online homework with overview of the content seen that day,

4. Based on the experience from this first class, organize the topics and assignments so that both students and professors have less load to complete a lot of material in a short time.

5. More content coverage, more projects

6. Since this is the first class, I expect there to be growing pains. I would try in future classes to maybe "dumb down" the worksheets taken from UC Berkeley, as they kind of felt a step above what we were doing at all times.

7. I think having a chance in class to go over some of the code for the projects or at least go over code relating to parts of the project (DFS/Admissible Heuristics/Expectimax) would've helped make the Python programs less stressful. When students struggled with the first program; having a period in class to go over the code needed to fulfill different search algorithms was very helpful in seeing how to go about playing with the agent classes and their data fields in order to create a search algorithm.

9. As mentioned, I believe that the pace needed to be adjusted to feel more balanced. There were times that the pace felt too fast. I also believe that the first assignment was too rigorous. I think that students would benefit by the assignment being broken up into parts. I think I spent the most time on the first assignment. I also think that the midterm was graded too harshly. Whereas other professors provide partial credit, Professor Pisan's grading felt very black and white, which was really discouraging. For example, there was a problem I perceived as being somewhat broad. I approached it correctly, which I clarified when we reviewed the midterm, but I was off by 1 because I perceived it, I suppose, incorrectly. It could have also been that an in class exercise we were supposed to have in class ended up being a take home, and the largest point problem on the midterm (which also received the lowest class average out of any problem on the midterm) was based solely around that exercise. I don't think we covered the material enough for a problem to be weighted so hard. The poor results show that.

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.