IASystem
The Course Evaluation Standard

CSS 382 A
Introduction To Artificial Intelligence
Course type: Online

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

Evaluation Delivery: Online
Evaluation Form: I
Responses: 39/42 (93% 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
3.7	**2**
(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: 5.2
(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 distance learning course as a whole was:	39	28%	21%	36%	13%	3%		3.5	1	2
The course content was:	39	26%	36%	31%	8%			3.8	2	3
The instructor's contribution to the course was:	39	38%	28%	28%	3%	3%		4.1	3	3
The effectiveness of the distance learning format was:	39	23%	21%	31%	23%	3%		3.3	1	1

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:	39	3%	38%	15%	38%	3%		3%	4.9	3	4
The intellectual challenge presented was:	39	28%	41%	18%	13%				6.0	7	6
The amount of effort you put into this course was:	39	13%	41%	26%	21%				5.6	4	4
The amount of effort to succeed in this course was:	39	18%	36%	23%	23%				5.6	4	4
Your involvement in course (doing assignments, attending classes, etc.) was:	39	15%	36%	15%	31%		3%		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: 9.9 Hours per credit: 2 (N=38)

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
	3%	11%	5%	26%	24%	13%	16%	3%			

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

Class median: 7.7 Hours per credit: 1.5 (N=38)

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
	3%	18%	26%	26%	8%	11%	8%				

What grade do you expect in this course?

Class median: 3.6 (N=38)

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%	50%	18%	5%	3%	3%									

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

(N=38)

In your major	A core/distribution requirement	An elective	In your minor	A program requirement	Other
39%	3%	58%			

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:	39	26%	26%	33%	13%	3%		3.5	0	
Student confidence in instructor's knowledge was:	38	42%	29%	16%	13%			4.2	2	2
Timeliness of instructor response to assignments was:	39	38%	33%	21%	8%			4.2	3	4
Quality/helpfulness of instructor feedback was:	38	34%	39%	21%	3%	3%		4.1	3	3
Tailoring of instruction to varying student skill levels was:	39	21%	18%	51%	8%	3%		3.3	0	
Clarity of course objectives was:	39	28%	36%	23%	13%			3.9	2	3
The organization of the study guide was:	39	31%	26%	31%	13%			3.8	0	
Content of the study guide was:	39	28%	33%	23%	15%			3.8	0	
Relevance of textbook for self-study was:	39	18%	18%	46%	13%	5%		3.2	0	
Usefulness of reading assignments in understanding course content was:	37	30%	14%	24%	27%	3%	3%	3.2	1	1
Usefulness of written assignments in understanding course content was:	38	24%	26%	26%	24%			3.5	2	2
Usefulness of video media in understanding course content was:	39	33%	18%	38%	8%		3%	3.6	0	
Usefulness of online resources in understanding course content was:	39	36%	18%	33%	8%	5%		3.7	2	2
Usefulness of audio media in understanding course content was:	39	31%	21%	28%	15%	5%		3.6	0	
Relevance and usefulness of course content were:	39	38%	28%	23%	10%			4.1	3	3
Evaluative and grading techniques (tests, papers, projects, etc.) were:	38	37%	32%	21%	11%			4.1	3	4
Reasonableness of assigned work was:	39	41%	31%	21%	8%			4.2	4	5
Clarity of student responsibilities and requirements was:	39	44%	26%	23%	8%			4.2	4	5

IASystem
The Course Evaluation Standard

CSS 382 A
Introduction To Artificial Intelligence
Course type: Online

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

Evaluation Delivery: Online
Evaluation Form: I
Responses: 39/42 (93% very high)

STANDARD OPEN-ENDED QUESTIONS

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

1. This course is very hard to comprehend and understand due to the content. Especially when talking about the later content covering machine learning due to the complexity.

3. Yes. The coursework was interesting and challenging. Although, it sometimes felt like it was only challenging because it wasn't properly explained.

4. I think it helps when we have quiz and practice

6. yes it introduced AI concepts to me

7. This class made me think a lot and really dig in.

8. Some of assignment

9. Yes, a lot of challenging aspects and visions to consider about.

10. The content was interesting. Different concepts meant different ways to think about different things

11. Yes, the course assignments offered lots of intellectual stimulation. They allowed students to directly apply what they learned in lecture.

12. I believe it did. The projects required me to not only understand the concepts, but to also know how to write it into code and to have it be executed step-by-step.

13. This class made me effectively learn a new programming language on the fly and figure out how to apply new concepts within that language. While this was challenging, it wasn't impossible.

14. Yes, brought up interesting topics that I enjoyed

15. Learning about new concepts that I have never heard of before along with their associated algorithms. Definitely stretched my thinking as it was challenging.

16. Yes, It was all new information I had never heard before.

17. Yes, I learned many new concepts about AI and was able to get a grasp of how it works.

18. this class was intellectually stimulating. It did stretch my thinking. The concepts were difficult to understand but it's really cool once I understood them.

19. This class is very intellectually stimulating. However, I feel like it probably wasn't the BEST elective for me to take for my degree path. It felt like I was really just scratching the surface of the AI field, and would need follow on graduate classes to really get a solid understanding.

20. Yes. I had fun learning about all of the different algorithms and applying them to a Pacman game

21. Yes, topics were challenging.

22. Yes the topic is one that is very useful to know and understand for working in the industry and wanting to work with up and coming technologies.

23. Yes it expanded on ai and how people approached it.

24. Yes, due to the fact that the professor put many of the concepts into examples and context which really allowed me to understand much more of the class.

25. Yes, because the some of the concepts were difficult and took some time to understand.

26. It stretched my thinking but artificial intelligence is a very complex class. However, the professor would spend time covering what we needed to know in a timely manner and had his TA offer sessions to help us as well in case we were stuck.

27. The content in the course had me thinking a lot.

28. It stretched my thinking because it made me think in terms of artificial intelligence

What aspects of this class contributed most to your learning?

1. Assignments mostly contributed, but I found them to be very difficult. Especially the third one.

3. The lectures were very helpful and the assigned programs were engaging.

4. I think the Pacman project help a lot

6. the practice quizzes and other practice

7. The hands on

8. Learn how the computer learn

9. Having tests and being able to read why the answers were what they were. It solidified understanding considering we didn't use textbooks.

10. The projects

11. Group work and examples in class.

12. I found that the attempt to make it relevant to current developments of AI helped contribute most

13. Applying the theory learned in class to programming projects was most helpful in helping me grasp concepts. By the time I'd finished a project, I had a really firm grasp on whatever that project covered.

14. Everything was balanced well that helped me learn a lot.

15. The project assignments and quizzes.

16. I think the professors positive attitude and interest in what he teaches contributed a lot to my learning, as well as he did a good job at making the lectures interesting even during zoom university.

17. The lectures and projects both added a lot to my understanding of the concepts and their implementation.

18. The slides are very easy to understand and follow.

19. Professor Pisan is incredibly knowledgeable, friendly, and really good at explaining things that maybe need further explaining or don't make a lot of sense. He pulls from a lot of different online resources to help, and that makes a huge difference. Of all the professors I've seen, he's one of the most well adapted to online teaching.

20. The interactive pac man examples contributed most to my learning.

21. The quizzes.

22. I programming assignments, canvas quiz exercises, and power point lecture slides contributed the most to my learning.

23. Class time

24. The straightforward homework assignments were really well written which allowed me to take as much away from the class as I can.

25. During lectures, when the professor was drawing over the slides to help us visualize the concepts and made it easier to understand.

26. Auto-grader built-in into the assignments, professor's enthusiasm for teaching the course and having us as his students, and group work.

27. I think the lectures contributed a lot to my learning

28. working with peers

What aspects of this class detracted from your learning?

1. Difficult assignments and it being online didn't help.

3. The online format. Some parts of the programs felt vague, which led to extra challenge.

4. nope

6. being online

7. Lack of code examples

8. Nothing

9. Just online environment isn't my thing.

10. The online format

11. N/A

12. Mostly the online aspect of it, though that couldn't be helped too much

13. I really struggled to keep up with lectures. I always had to go back and rewatch recordings and review lecture notes to really grasp something. Maybe this was by design, but it pissed me off while I was dealing with it.

14. Being online

15. Nothing I can think of.

16. I felt like people who took CSS343 before this class probably had a way easier time than me on some concepts, a lot of the time in CSS343 we would go over concepts we learned about in this class weeks later.

17. Certain concepts were confusing and perhaps could have been notated better in the slides (I.e., some of the longer equations)

18. The professor didn't spend enough time on explaining the programming assignments in my opinion.

19. The material is really difficult, and there is a lot of it. I felt like the chunks of learning weren't always digestible. Some of the homework assignments/projects felt like they were too difficult.

20. I think not being in person detracted from my learning the most.

21. Assignments.

22. I feel that some of the video examples used in lecture did not contribute to my learning that much.

23. N/A

24. The exams were probably my least helpful part of the class due to the fact that I personally dislike test taking and it doesn't always accurately show how much I've learned or understood about the class.

25. There wasn't really anything that detracted from my learning.

26. The learning curve was huge in this class especially because I didn't know any Python so I would be learning twice as hard.

27. I don't think anything detracted from my learning

28. none

What suggestions do you have for improving the class?

1. Class is overall fine, but maybe the assignments need a bit of tweaking? More specifically project 3 having pseudocode might of helped or some pointers

2. The materials before the reinforcement learning is great. However, I do think the second half of the class is not particular useful. If I am structuring the class and decided not the follow the original Berkeley course, I will focus on what the recent excitement on AI, such as self-driving cars, google machine translation, etc.

3. None at this time

4. nope

5. I think you should spend more time getting everyone caught up on the more complex sides of python. There are strange things you can do with python, that you cannot do in C++, and I feel like I don't really understand much of it. There was some homework and test questions that were WAY too math heavy. It feels like you took the lectures from ..... (I forgot where), but did not teach us the same math that they teach their students. If you are going to give very math heavy quizzes, then you should do an equally good job teaching the math part prior to the quiz. You mentioned gamma decay (I think it was that)... for about 20 seconds and then moved on, but for the next quiz it was a prominent thing that you HAD to know. If you are going to place a concept on a quiz, cover it for more than 20 seconds.

7. Try to have more hands on code examples

8. Nothing

9. Have more tests but have them weigh a lower percentage of the overall grade.

10. Probably becomes much improved in person

11. Perhaps more group work in class.

12. I found the worksheets to help with reinforcing certain conceptual ideas, so maybe more of those.

13. If at all possible, slow down lectures, field more questions during lectures and make the content more engaging while lecturing to help ensure understanding. Maybe throw more quizzes at students during class, but keep the quizzes low-impact in terms of how they affect students' grade to limit how stressful they might be. I think this will serve to strengthen understanding for some/many students while helping keep attendance high.

14. n/a

15. No suggestions

16. Going over more practice problems in class.

17. Great class, I think spending more time discussing implementation of concepts is always a plus

19. I think this needs to be an in-person, group-oriented class. The material takes a lot of work to understand it, and having discussions among peers really helps. I also maybe would have discussed some of the later portions (the future of AI), earlier on in the quarter. Maybe even at the very beginning.

20. I thought the class was perfect for what it was as an online course.

21. The auto grader was really annoying.

22. I feel that incorporating a relevant and required textbook into the course would help with learning and understanding the concepts covered in this course.

23. N/A

24. I honestly think the class is incredibly well-balanced as it is.

25. The Eliza assignment wasn't really interesting to me. I would like there to be time to do the ghostbusters assignment.

26. More code reviews in class rather than written assignments.

27. I don't have any suggestions on how to improve the class

28. keep up the good work

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.