

# COURSE SUMMARY REPORT

Numeric Responses

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

# CSS 133 A Computer Programming For Engineers II Course type: Face-to-Face

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:

Evaluation Delivery:	Online
Evaluation Form:	D
Responses:	13/23 (57% high)

Median	College Decile
3.5	1
(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

	Excellen N (5)		Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median	DECI Inst	LE RANK College
The course as a whole was:	13	23%	23%	54%				3.4	1	2
The course content was:	13	23%	23%	54%				3.4	1	1
The instructor's contribution to the course was:	13	38%	15%	38%	8%			3.8	1	2
The instructor's effectiveness in teaching the subject matter was:	13	31%	15%	46%	8%			3.4	1	2

# STUDENT ENGAGEMENT

Relative	to other c	ollege co	urses you	have take	en:		H N	Much ligher (7)	(6)	(5)	Average (4)	(3)	(2)	Much Lower (1)	Median	DECI Inst	LE RANK College
Do you expect your grade in this course to be:							13	15%	15%	38%	15%			15%	5.0	3	5
The intellectual challenge presented was:							13	38%	23%	15%	23%				6.0	8	7
The amount of effort you put into this course was:							13	46%	15%	15%	23%				6.2	8	8
The amou	unt of effor	t to succe	ed in this c	ourse was	:		13	54%	8%	15%	23%				6.6	9	8
Your invo etc.) was	lvement in :	course (c	loing assig	nments, at	tending cla	asses,	13	38%	23%	15%	23%				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?							per credit	: 1.8	(N=13)								
Under 2 15%	2-3		4-5	<b>6-7</b> 8%	<b>8-9</b> 38%	10-11 8%		1 <b>2-13</b> 23%		14-15	16 8	6-17 8%	18	-19	20-21	22	or more
From the valuable i	total avera n advancir	age hours ng your ed	above, how lucation?	w many do	you consi	der were					Class r	median	: 8.2	Hours p	per credit	: 1.6	(N=13)
Under 2 15%	2-3		4-5	<b>6-7</b> 23%	<b>8-9</b> 31%	10-11 8%		1 <b>2-13</b> 15%		14-15	16 8	6-17 8%	18	-19	20-21	22	or more
What grad	de do you	expect in t	this course	?										Clas	s median	: 2.7	(N=12)
A (3.9-4.0) 25%	A- (3.5-3.8) 8%	B+ (3.2-3.4)	B (2.9-3.1) 8%	в- (2.5-2.8) 25%	C+ (2.2-2.4)	C (1.9-2.1) 17%	C- (1.5-1. 8%	8) (1	D+ .2-1.4)	D (0.9-1.1	D I) (0.7-	- 0.8)	E (0.0)	Pas 8%	s Cre	dit	No Credit
In regard	to your ac	ademic pr	ogram, is t	his course	best desc	ribed as:											(N=12)
A core/distributionIn your majorrequirementAn elective75%8%					elective		In	your m	inor	Ар	rogram 17	r <b>equir</b> e	ement		Other		



#### STANDARD FORMATIVE ITEMS

		Excellent	Very Good	Good	Fair	Poor	Very Poor		DECII	E RANK
	Ν	(5)	(4)	(3)	(2)	(1)	(0)	Median	Inst	College
Course organization was:	13	23%	38%	31%	8%			3.8	3	3
Sequential presentation of concepts was:	13	31%	23%	38%	8%			3.7	2	2
Explanations by instructor were:	13	15%	46%	31%	8%			3.8	2	3
Instructor's ability to present alternative explanations when needed was:	13	23%	31%	46%				3.6	2	2
Instructor's use of examples and illustrations was:	13	31%	23%	46%				3.7	1	2
Quality of questions or problems raised by the instructor was:	13	31%	38%	23%	8%			4.0	3	4
Contribution of assignments to understanding course content was:	13	23%	38%	38%				3.8	2	2
Instructor's enthusiasm was:	13	31%	46%	15%		8%		4.1	1	2
Instructor's ability to deal with student difficulties was:	13	31%	46%	15%		8%		4.1	4	4
Answers to student questions were:	13	23%	54%	15%		8%		4.0	3	3
Availability of extra help when needed was:	13	38%	38%	15%		8%		4.2	3	4
Use of class time was:	13	23%	46%	23%	8%			3.9	3	3
Instructor's interest in whether students learned was:	13	31%	38%	23%		8%		4.0	2	3
Amount you learned in the course was:	13	15%	69%	8%		8%		4.0	3	4
Relevance and usefulness of course content were:	13	23%	54%	15%	8%			4.0	3	3
Evaluative and grading techniques (tests, papers, projects, etc.) were:	13	15%	46%	23%	15%			3.8	2	3
Reasonableness of assigned work was:	13	15%	62%	23%				3.9	3	3
Clarity of student responsibilities and requirements was:	13	38%	38%	15%		8%		4.2	4	4



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## STANDARD OPEN-ENDED QUESTIONS

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

1. Yes

2. This class was very intellectually stimulating. The instructor frequently included examples and real-life applications to the textbook and power point concepts.

3. Yes because it will soon be applied in future classes when designing microprocessors in EE 425 which i will be taking soon and will have a advantage on since i know how to use C and C++

4. This class was intellectually stimulating. C++ is a very hard subject and I did struggle with it. However, I think this class did give a good understanding of programming in C and C++.

5. Yes it waws stimulating. It definitely stretched my thinking just like leaning a new way to communicate.

6. This is a tough class, make no mistakes about it. Professor Pisan has pretty high standards, but he's also an excellent lecturer. He always tries to push us to do better.

7. Yes, I had to think about things in new ways.

8. Yes, it was definitely a challenging course.

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

1. class exercise

2. Aspects that contributed most to my learning was the online textbook and in-class exercises. The instructor's office hours were also very helpful.

3. In class examples helped a ton and when coding the examples in class helped me connect the dots on how the code was running. Overall greatly improved from the previous quarter in 132.

4. I think the in-class activities helped me a lot. The in-class activities had a good mix of what the material needed to cover and I think it helped a lot.

5. Lecturers and zybooks

6. Professor Pisan is wonderful. He makes great use of class time, and if we ever have to miss a class, he's got a video lecture prepared. He answers questions, and presents alternative examples when necessary.

7. The in-class assignments and labs.

8. I like the lecture and writing code in Replit in class.

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

1. none

2. No aspects detracted from my learning.

3. Nothing

4. I feel like I need more practice with C++, but that may have something to do with me. I feel like Pisan assumed we knew things and didn't explain clearly. He also didn't explain why a certain way of coding was done rather than another way.

5. none

6. I feel like the class didn't have as natural of a flow as last quarter. We started with C, then jumped back into C++ to study advanced concepts, then got into algorithms complexity analysis at the end. It felt a little disjointed, and I'm a little intimidated about a comprehensive final.

7. Nothing really.

# What suggestions do you have for improving the class?

1. none

2. A suggestion I have is to make more of the online homework available earlier, so students could work ahead if they choose to do so.

3. I think that the Linux section at the beginning of the quarter was very confusing and it might be good to not even bother leaning about it at all. If it is gonna be continued it might be good to spend more time going over how to use it in class.

4. I suggest that Pisan explain certain aspects more clearly and explain why a certain way was done. Sometimes it felt like he assumed we knew something when sometimes we don't.

5. Getting more examples of written programs

Evaluation Delivery: Online Evaluation Form: D Responses: 13/23 (57% high) 6. My only suggestion and I know I share this opinion with other students...is that sometimes Professor Pisan will make subjective decisions about exams. For example, taking points away for answering a question in a valid manner, but it maybe not being the "best" method to do so, even though it was not explicitly stated to do it that way. He's not always very receptive to feedback when we bring it up either.

7. Nothing really.

8. Having an extra credit or optional assignment at the end of the quarter.



*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).

<sup>&</sup>lt;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.