IASystem
The Course Evaluation Standard

COURSE SUMMARY REPORT
Numeric Responses

University of Washington, Bothell
Sci, Tech, Engr. & Math
Science, Tech, Engr. & Math
Term: Autumn 2019

CSS 132 A
Computer Programming For Engineers I
Course type: Face-to-Face

Evaluation Delivery: Online
Evaluation Form: D
Responses: 19/35 (54% 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
3.3	**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: 5.1
(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 course as a whole was:	19	16%	21%	47%	16%			3.2	1	1
The course content was:	19	16%	32%	47%	5%			3.4	1	1
The instructor's contribution to the course was:	19	21%	26%	47%	5%			3.4	1	1
The instructor's effectiveness in teaching the subject matter was:	19	16%	21%	53%	11%			3.2	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:	19	11%	16%	26%	37%	5%		5%	4.6	2	3
The intellectual challenge presented was:	19	37%	21%	26%	11%			5%	5.9	6	5
The amount of effort you put into this course was:	19	21%	21%	32%	16%	5%		5%	5.2	2	2
The amount of effort to succeed in this course was:	19	42%	5%	26%	11%	5%	5%	5%	5.4	3	2
Your involvement in course (doing assignments, attending classes, etc.) was:	19	32%	21%	26%	16%			5%	5.6	3	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: 9.8 Hours per credit: 2 (N=19)

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
5%		11%	5%	26%	16%	11%	5%	5%	5%		11%

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=19)

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
5%	5%	16%	11%	26%	5%	5%	11%		5%		11%

What grade do you expect in this course?

Class median: 3.4 (N=18)

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
17%	22%	33%		11%	11%	6%								

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

(N=18)

In your major	A core/distribution requirement	An elective	In your minor	A program requirement	Other
56%	11%			33%	

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:	19	16%	26%	47%	11%			3.3	1	2
Sequential presentation of concepts was:	19	21%	11%	53%	16%			3.1	0	1
Explanations by instructor were:	19	11%	21%	58%	11%			3.2	1	1
Instructor's ability to present alternative explanations when needed was:	19	5%	37%	58%				3.4	1	1
Instructor's use of examples and illustrations was:	19	16%	37%	42%	5%			3.6	1	1
Quality of questions or problems raised by the instructor was:	19	21%	32%	42%	5%			3.6	1	2
Contribution of assignments to understanding course content was:	19	26%	37%	37%				3.9	3	3
Instructor's enthusiasm was:	19	21%	37%	42%				3.7	1	1
Instructor's ability to deal with student difficulties was:	19	26%	26%	37%	11%			3.6	2	2
Answers to student questions were:	19	21%	32%	42%	5%			3.6	1	2
Availability of extra help when needed was:	19	37%	16%	42%	5%			3.7	1	1
Use of class time was:	19	11%	37%	42%	11%			3.4	1	1
Instructor's interest in whether students learned was:	19	26%	37%	32%	5%			3.9	1	2
Amount you learned in the course was:	19	26%	21%	47%	5%			3.4	1	1
Relevance and usefulness of course content were:	19	37%	26%	37%				4.0	3	3
Evaluative and grading techniques (tests, papers, projects, etc.) were:	19	21%	42%	32%	5%			3.8	2	3
Reasonableness of assigned work was:	19	16%	26%	42%	16%			3.3	1	1
Clarity of student responsibilities and requirements was:	19	21%	11%	68%				3.2	1	1

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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 was my first programming experience, and I think it was a good introduction.
3. Yes, this is because this class was my first language and I had absolutely no previous knowledge of coding.
4. Yes
5. This class was intellectually stimulating. It was such a different subject than what I had before that I did struggle. I do understand C++ on the fundamental level now after the class is over.
6. It was very hard.This is because I'm unfamiliar with programming.
7. Yes, it introduced me to how c++ and computer programming works.
8. Yes, it showed that there are many ways to solve most problems in C++
9. This class was very intellectually stimulating. The problems in the textbook were challenging and helped students apply what they learned from the reading.
10. I learned more about programming in this course than any other programming course I've ever taken.
11. Yes, this class was intellectually stimulating and I felt challenged in my reasoning.
12. Yes, I like programing problems.
13. This class stretched my thinking as i am fairly inexperienced in coding
14. Yes, programming is challenging in general. Coding helped me think critically and problem-solving.
15. yes
16. Yh it gave me different ways in solving problems relating to coding in this language

What aspects of this class contributed most to your learning?

1. Zybook homework
2. Zybooks, going over examples, and independent studying /study groups
3. The homework problems helped the most.
4. Zybooks
5. The professor does have a lot of knowledge when coding C++ and that really helped me learn the material. Also, the extra skills class was very effective and I feel like I could take a lot out of that class. This class specifically helped because we could practice with code in class that we learned in the homework.
6. Zybooks helped me a lot. It's a good program to teach C++.
7. the labs and Zybooks.
8. Lab exercises on zybooks
9. The aspects of this class that contributed most to my learning was the textbook.
10. Zybooks is fantastic for learning. Professor Pisan challenged us with difficult questions during exams. Both of these increased my learning.
11. Zybooks participation and homework, and class explanation from the lecturer.
12. Zybook lab problems. In class exercises.
13. Zybooks and in class examples helped a lot
14. Working out problems with groups and writing code by hand.
15. this really good class. The subject are difficult
16. interactive features like zybooks

What aspects of this class detracted from your learning?

1. None
2. Applying pressure on students to engage - I was more worried about being called on than the material.
3. Nothing.

4. Class time (sometimes).. only due to my own downfalls.. distractions.

5. This class was very homework heavy and it almost felt like a self-taught class. Which, for someone who has never had C++ before that was a little different and hard to get used to.

6. The amount of time available to learn the material. i just need more time because I'm a very slow learner when it comes to programming.

7. It was a bit slow at times

9. No aspects detracted from my learning.

10. The CSSKL labs were not always very understandable. I don't personally feel like I learned much from them. Zybooks can occasionally be infuriating.

11. None..

12. How late the class was.

13. N/A

15. good

16. lots of homework and participation

What suggestions do you have for improving the class?

1. None

2. Facilitate a classroom environment where students can feel comfortable, because that is how I best learn. It didn't happen all the time, and you did a great job, but I was uncomfortable with being called on randomly.

3. The only suggestion I would make is to spend more time at the beginning developing very basic coding skills and then at the very end spending more time in class talking about pointers and linked list. Pointers and linked lists were the hardest parts for me and we brushed over them very quickly towards the end of the quarter so in the future it would probably he beneficial to spend more time on these topics.

4. during class, allow us to code on our computers so we can see the changes in code as we go, maybe a group docs where we watch you make the changes or show examples. The board + projector is very boring and makes it hard to focus.

5. I suggest maybe explaining and saying more about what we did in the homework in general and then asking if we have questions instead of asking if we had any questions on the homework.

6. Break it up into two quarters. I feel like slow learners just need more time to learn programming.

7. Go through content a bit faster.

8. A wider variety of problems given in the course.

9. The only suggestion I have is to include more practice problems during class.

10. I feel like we didn't have enough practice with linked lists and pointers when it first showed up on exams.

11. More group work activities

12. Group repl.it where we can see what he is doing as he types it.

13. For lab section we should just make it like a study period to ask questions n go over the material presented in class

14. More extra credit opportunities Fun projects of some sort.

15. I don't have any suggest

16. Instructor could do a better job of in class examples that students try and come up with own solutions and talking about them.

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.