

COURSE SUMMARY REPORT

Numeric Responses

University of Washington, Bothell

Science, Tech, Engr. & Math Term: Winter 2025

CSS 430 B **Operating Systems**

Course type: Unknown Taught by: Yusuf Pisan

Instructor Evaluated: Yusuf Pisan-Assoc T Prof

Evaluation Delivery: Online Evaluation Form: A

Responses: 43/46 (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 4.3 (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: 5.3 (1=lowest; 7=highest)

SUMMATIVE ITEMS

	N	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median		LE RANK College
The course as a whole was:	43	44%	23%	26%	5%	2%		4.2	5	6
The course content was:	43	40%	28%	30%	2%			4.1	4	5
The instructor's contribution to the course was:	43	49%	28%	16%	5%	2%		4.5	4	5
The instructor's effectiveness in teaching the subject matter was:	43	44%	26%	23%		7%		4.3	4	5

TUDENT ENGAGENT

STUDEN	T ENGAG	EMENT																
				Much Higher			Average			Much Lower		DECI	LE RANK					
Relative	to other c	ollege co	urses you	ı have tak	en:		N	(7)	(6)	(5)	(4)	(3)	(2)	(1)	Median		College	
Do you ex	xpect your	grade in t	his course	to be:			43	9%	21%	14%	49%	5%	2%		4.4	1	2	
The intelle	ectual chal	lenge pres	ented was	3:			43	21%	47%	21%	9%	2%			5.9	6	6	
The amou	unt of effor	ffort you put into this course was:					43	14%	42%	30%	12%	2%			5.6	4	4	
The amou	unt of effor	t to succe	ed in this c	ourse was	:		43	14%	42%	33%	9%	2%			5.6	5	4	
Your invo		course (c	oing assig	nments, at	tending cla	asses,	43	26%	30%	21%	21%	2%			5.7	4	4	
including a	attending of	classes, d		ngs, review		nis course, writing					Class m	nedian:	10.4	Hours	oer credi	t: 2.1	(N=43)	
Under 2	2-3		4-5	6-7	8-9	10-11		12-13	3	14-15	10	6-17	18	3-19	20-21	22	or more	
2%	2%	, !	9%	16%	12%	19%		14%	0	9%	5	5%	2	2%	7%		2%	
	total avera n advancir	0		w many do	you consi	der were					Class	mediar	n: 8.7	Hours	er credi	t: 1.7	(N=43)	
Under 2	2-3	2-3		6-7	8-9	10-11		12-13		14-15	16-17		18	3-19	20-21 2		22 or more	
	7%	. 2	1%	14%	14%	26%		5%		9%	5	5%						
What grad	de do you	expect in t	his course	e?										Clas	s mediar	ո։ 3.5	(N=42)	
A (3.9-4.0) 21%	A- (3.5-3.8) 38%	B+ (3.2-3.4) 33%	B (2.9-3.1) 5%	B- (2.5-2.8) 2%	C+ (2.2-2.4)	C (1.9-2.1)	C- (1.5-		D+ 1.2-1.4)	D (0.9-1.	D 1) (0.7-	-0.8)	E (0.0)	Pas	s Cre	edit	No Credit	
In regard	to your ac	ademic pr	ogram, is t	this course	best desc	ribed as:											(N=43)	
A core/distribution In your major requirement 60% 37%		An	elective		Ir	In your minor A program requirement 2%				ement	Other							



COURSE SUMMARY REPORT

University of Washington, Bothell Science, Tech, Engr. & Math Numeric Responses Term: Winter 2025

STANDARD FORMATIVE ITEMS

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	N	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median		LE RANK College
Course organization was:	43	53%	26%	16%	5%			4.6	6	7
Clarity of instructor's voice was:	43	40%	21%	33%	7%			4.0	2	3
Explanations by instructor were:	42	36%	31%	26%	7%			4.0	3	4
Instructor's ability to present alternative explanations when needed was:	43	44%	28%	21%	7%			4.3	4	5
Instructor's use of examples and illustrations was:	43	47%	23%	23%	7%			4.3	4	5
Quality of questions or problems raised by the instructor was:	43	44%	35%	16%	2%	2%		4.3	4	5
Student confidence in instructor's knowledge was:	43	60%	23%	9%	5%	2%		4.7	5	5
Instructor's enthusiasm was:	43	65%	16%	14%	5%			4.7	5	6
Encouragement given students to express themselves was:	43	47%	23%	26%	2%	2%		4.3	3	4
Answers to student questions were:	43	49%	21%	23%	7%			4.4	4	5
Availability of extra help when needed was:	43	49%	35%	12%	5%			4.5	4	5
Use of class time was:	42	52%	19%	19%	7%	2%		4.5	6	6
Instructor's interest in whether students learned was:	43	56%	23%	16%	2%	2%		4.6	5	6
Amount you learned in the course was:	43	49%	28%	16%	5%	2%		4.5	5	6
Relevance and usefulness of course content were:	42	57%	26%	14%	2%			4.6	6	6
Evaluative and grading techniques (tests, papers, projects, etc.) were:	43	49%	28%	16%	5%	2%		4.5	4	6
Reasonableness of assigned work was:	43	56%	23%	16%	5%			4.6	5	6
Clarity of student responsibilities and requirements was:	43	56%	23%	14%	7%			4.6	5	6



COURSE SUMMARY REPORT

Student Comments

University of Washington, Bothell Science, Tech, Engr. & Math Term: Winter 2025

CSS 430 B Evaluation Delivery: Online Operating Systems Evaluation Form: A

Course type: Unknown Responses: 43/46 (93% very high)

Taught by: Yusuf Pisan

Instructor Evaluated: Yusuf Pisan-Assoc T Prof

STANDARD OPEN-ENDED QUESTIONS

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

- 1. Yes, concept is hard but very enjoyable to learn
- 2. Theoretical concepts in this class encouraged me to think deeper on its application in the real-world.
- 3. Yes. The topics are relevant and important
- 4. Yes, it is very helpful in the current issues I need to learn and helps stretch my thinking with the building blocks
- 5. Yes the class was intellectually stimulating the concepts were challenging and presented many opportunities to push yourself
- 6. Yes, this class was intellectually stimulating. The programming projects required that I stretched my thinking in order to complete them.
- 7. This class was fun i learnt a lot of new stuff and coding in a new language. Had to google how to implement a lot of stuff.
- 8. Yes
- 9. Yes, this class was intellectually stimulating. Every class session I learned a new topic/concept. So much so that I had to frequently visit the QSC to review what I had learned because it felt like an information overload.
- 10. Yes this class is one of few that was intellectually stimulating, it did stretch my thinking and provide me with a foundation of operating systems and provided me with more insight on how they worked which was great
- 11. yes. I learned a lot about operating system.
- 12. Yes, the material was very interesting and challenging in just the right way. Topics were interesting, relevant, and above all meaningful.
- 13. This class was very intellectually stimulating because it made me think about how operating systems work, and I was able to learn more about C while also building my knowledge of memory management and OS.
- 14. Yes it was intellectually stimulating. Made me think of coding in a new and different way I was not used to.
- 15. Yes. It built on concepts we were familiar with (data structures and algorithms) while delving into new material (OS)
- 16. Yes, I found this class to be very interesting
- 17. the content is interesting. i enjoy classes that are easily tangible and relate the real world
- 18. I did stretch my thinking and was intellectually stimulating. It was a lot of work.
- 20. Yes, the class was intellectually stimulating as my thinking was stretched. Most of if not all of the content was fairly new to me, and many topics such as thread synchronization, non-contiguous memory, virtual vs physical addresses were not factors I previously considered when designing an operating system.
- 21. Yes it did, the concepts themselves were intellectually stimulating, and the assignments that went along with them
- 22. Very intellectually stimulating due to connecting multiple aspects of operating systems to understand new ideas.
- 23. Yes and it was very hard to retain info but is a very helpful topic as an engineer.

What aspects of this class contributed most to your learning?

- 1. I like project
- 2. Projects contributed most; allowing me to directly apply the concepts practically.
- 3. class exercises and practice questions
- 4. In class discussion
- 5. availability of recorded lectures
- 6. I think I learned the most during the programming projects.
- 7. Solving on your own and helping out the prof write stuff on the board was the most important factor that contributed to my learning.
- 8. Projects and lecture slides
- 9. I really enjoyed the in-class activities/exercises as it allowed for students to share their thinking and ask for immediate feedback. I also enjoyed reviewing the homework assignments in class so students were to able to ask questions and listen to other students' perspectives.
- 10. The class lectures provided the most to my learning as the teacher explained everything clearly and made sure people understood as well as was open to follow up questions about the system even if they were out of scope for the class
- 11. class examples and projects
- 12. Yusuf Pisan is an excellent professor and cares very much about his students and their mastery of the material. He was easily the best part of the course.
- 13. The projects were very good. I loved learning about C while also building my knowledge in operating systems.

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- 14. I liked the projects the most.
- 15. Concepts were taught Textbook readings -> class lectures -> in-class excercises -> homework assignment/program We had a comprehensive review before the tests. Test questions reflected on class material. Professor easily accessible. We took breaks appropriately (between subjects, or especially after a heavy load.
- 16. definitely the projects
- 17. homework assignments, and therefore my own independent learning associated with discovering how to do the assignments.
- 18. HW1-6
- 19. In class examples that students had to complete.
- 20. An aspect of the class that contributed most to my learning were the many diagram illustrations on the lecture slides. Most slides have minimal text and relied manly on verbal explanations, which I felt was done adequately. I also appreciated that the lectures were recorded, so I was able to go back a revisit certain sections.
- 21. The in class exercises that would be done on the whiteboard
- 23. projects

What aspects of this class detracted from your learning?

- 1. None
- 2. Readings are lengthy and it would be useful to have more examples in lecture slides.
- 3. lectures were very very information heavy and sometimes difficult to understand
- 4. Some of the lectures were difficult to follow
- 5. Long lectures can become hard to focus on
- 6. Sometimes the programming projects would have unclear requirements or the homework questions were vague. Additionally sometimes the due dates for the projects were too close together and I felt rushed.
- 7. The amount of stuff I had to Google was just exhausting. Would have been better if the prof talked about the projects a bit more in class.
- 8. Sometimes we ended class a bit early.
- 9. I was studying and preparing for the exams, but the provided sample exams were nothing like the actual exams.
- 10. Nothing really, maybe lectures could have been a little faster to keep me occupied as sometimes they went slow so I would check out but otherwise there wasn't any distractions
- 11. nothing
- 12. Nothing comes to mind.
- 13. The test felt like a detour from the other course material, where a lot of the stuff wasn't what we focused mainly on in class, and instead other things that were mentioned very shortly during class.
- 14. I disliked the lecture slides.
- 16. The homework's didn't help much
- 17. having to basically "know everything" for the exams / not having more-focused boundaries for studying. It seems like the professor was looking at the slides for the very first time each lecture / teaching this class for the first time with no real prep work. There was a lot of time spent googling what things were or not understanding the code in the slides / having to troubleshoot. It's not that he didn't get there eventually but that's not the dynamic I want in a class from my teacher.
- 18. lectures
- 20. There weren't really any aspects of the class that detracted from my learning. The course was taught well and exceeded my expectations. I guess if I had to say something, I didn't really like how the seats were arranged in the class.
- 21. n/a
- 22. fast pace made it easy to miss seemingly minor things which play major roles in future topics.
- 23. complexity of certain topics

What suggestions do you have for improving the class?

- 1. Maybe more exercise in class
- 2. Include more examples in lecture slides and practice exams.
- 3. potential slow down lecture or provide more images or information on slides
- 4. More structure the lectures for deeper understanding
- 5. Adding more in class assigments
- 6. Spread out the project due dates more evenly throughout the quarter.
- 7. Talk more about projects, have more class in group assignments, involve students more in class and not make it a lecture kind of class
- 8. None
- 9. Larger spacing between projects; in the first few weeks the class started off slow with no projects, but it the projects became significantly more frequent during the end of the quarter. Improved spacing will allow for students to better manage time & not feel overloaded near the end of the quarter.
- 10. as said previously go a little faster to make sure people are always paying attention and not checkout.
- 11. nothing. everything is good

- 12. Professor Pisan mentioned the possibility of exploring real Linux source code in future iterations of CSS 430, I think this would be a great addition to the course material and would be an improvement.
- 13. I think the course was very good overall, but maybe spend more time discussing projects in class, or give more group work assignments and discussions, so it's not just lectures in class.
- 14. I wish the lecture slides were original work.
- 16. more projects
- 17. having more pertinent study guides with sample questions that mimic the actual exam. Exam environment adds so many different stressors, no new versions of working a problem or new types of problems should appear there. I'm not sure what's so wrong with having more practice problems? We have basically none the whole quarter. I think it should work more like a math class where you actually just practice exam type problems. I rely on the class to give me structure.
- 18. Be nicer with grading on the tests. Not just 0 mid and full. Maybe partial credit for attempting with some correct parts.
- 20. There were some moments when the professor giving a live demo was met with some issues that delayed the lecture. So one suggestion I have is to have a quick trial run before class starts to ensure there's no issues during class time.
- 21. More whiteboard examples and walkthroughs, some more explanation and context to new concepts would be helpful
- 22. Slow down lectures. more walk through examples or real world examples.
- 23. more hands on assignments that teach rather than quiz



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. 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.