IASystem
The Course Evaluation Standard

COURSE SUMMARY REPORT
Numeric Responses

University of Washington, Bothell
Engineering and Mathematics
Term: Autumn 2015

B EE 271 AA
Digital Circuits And Systems
Course type: Face-to-Face

Taught by: Nicole Hamilton
Instructor Evaluated: Nicole Hamilton-Lecturer

Evaluation Delivery: Online
Evaluation Form: H
Responses: 13/20 (65% 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
	4.0	**4**
	(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: 5.8
(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 lab section as a whole was:	13	38%	15%	23%	23%			3.8	2	3
The content of the lab section was:	13	31%	31%	8%	31%			3.9	3	3
The lab instructor's contribution to the course was:	13	31%	46%		23%			4.1	2	4
The lab instructor's effectiveness in teaching the subject matter was:	13	38%	31%	8%	23%			4.1	3	4

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:	13	31%	38%	15%	15%				6.0	8	9
The intellectual challenge presented was:	13	54%	23%	8%	15%				6.6	9	8
The amount of effort you put into this course was:	13	23%	69%		8%				6.1	7	7
The amount of effort to succeed in this course was:	13	23%	54%	15%		8%			6.0	7	6
Your involvement in course (doing assignments, attending classes, etc.) was:	12	42%	33%	17%	8%				6.2	8	7

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: 8.1 (N=13)**

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
		15%	23%	38%	15%			8%			

From the total average hours above, how many do you consider were valuable in advancing your education?   **Class median: 6.7 (N=13)**

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
8%		15%	46%	8%	15%			8%			

What grade do you expect in this course?   **Class median: 3.5 (N=13)**

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
31%	23%	15%	23%	8%										

In regard to your academic program, is this course best described as: **(N=13)**

In your major	A core/distribution requirement	An elective	In your minor	A program requirement	Other
92%	8%				

STANDARD FORMATIVE ITEMS

	N	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median	DECILE RANK Inst	College
Explanations by the lab instructor were:	13	46%	23%	8%	23%			4.3	5	6
Lab instructor's preparedness for lab sessions was:	13	54%	23%	15%	8%			4.6	5	9
Quality of questions or problems raised by the lab instructor was:	13	46%	23%	15%	15%			4.3	5	6
Lab instructor's enthusiasm was:	13	62%	23%		15%			4.7	5	5
Student confidence in lab instructor's knowledge was:	13	62%	8%	15%	15%			4.7	5	6
Lab instructor's ability to solve unexpected problems was:	13	46%	31%	8%	15%			4.4	6	8
Answers to student questions were:	13	46%	23%	23%	8%			4.3	4	5
Interest level of lab sessions was:	13	38%	38%	8%	15%			4.2	5	7
Communication and enforcement of safety procedures were:	13	54%	15%	15%	15%			4.6	6	9
Lab instructor's ability to deal with student difficulties was:	13	62%	8%	15%	15%			4.7	8	9
Availability of extra help when needed was:	13	69%	15%		15%			4.8	8	8
Use of lab section time was:	13	69%	8%	15%	8%			4.8	8	8
Lab instructor's interest in whether students learned was:	13	69%	8%	8%	15%			4.8	7	7
Amount you learned in the lab sections was:	13	38%	23%	23%	15%			4.0	4	4
Relevance and usefulness of lab section content were:	13	46%	15%	23%	15%			4.2	4	5
Coordination between lectures and lab activities was:	13	15%	15%	8%	31%	23%	8%	2.1	0	0
Reasonableness of assigned work for lab section was:	12	42%	8%	8%	42%			3.5	2	2
Clarity of student responsibilities and requirements was:	13	46%	23%	8%	23%			4.3	5	5

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STANDARD OPEN-ENDED QUESTIONS

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

2. Oh yea. It was my hardest course and my favorite.

3. yes

5. Yes it was. I was interesting to work with a program that required us to think about hardware from a software perspective.

6. Yes because Nicole pushes us to figure things out like a normal project manager would instead of just giving you an answer.

8. Yes it was very intellectually stimulating. It challenged me to really think about how digital circuits function and how to write the correct Verilog code.

What aspects of this class contributed most to your learning?

2. Nicole. She is awesome.

5. The extra help Nicole offered, and her willingness to give extra time to struggling groups. Nicole also responded very quickly to emails and wanted to make sure each student succeeded.

6. The second and third project.

7. The labs pushed my knowledge of the subject. Instructor would stay late to help and come in when she did not need to. When asked questions would explain it in several different ways till it made sense

8. Writing the Verilog code contributed most to my learning.

What aspects of this class detracted from your learning?

2. The lab of fusion between lectures and labs.

5. The labs were not very balanced in terms of difficulty. The first lab had nothing to do with Verilog while the 2nd and 3rd were very verilog intensive. The jump in how much knowledge of Verilog you needed from the second to 3rd lab was also very intense.

6. The way the lab benches are positioned. Sometimes its hard to see the front of the class.

7. None

8. Sometimes the lab instructions werent very clear and it wasted a lot of time that could have been put to better use.

What suggestions do you have for improving the class?

1. More explanations for the lab, such as giving out similar project and solution. Else it's very hard for student who just start learning the verilog

2. One teacher for both the lab and lecture.

3. More instruction of how doing the lab because of the lack of the connection between lectures and lab session.

4. Sync lab with lecture and vice versa.

5. Coordinating the lecture and lab content better. It is easy to understand how the individual parts of code may work, but how to actually implement them into a working design is a whole other issue.

6. Maybe synchronize the lab with the lecture.

7. Overall none to do directly with the lab. But I think it would have been nice to more directly relate stuff from class to lab

8. Make sure that what we do in the labs correspond to what we learn in class, and that they are on the same page.

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).

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[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.