

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

Evaluation Delivery: Online  
Evaluation Form: H  
Responses: 12/19 (63% high)

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

<b>Median</b> <b>4.0</b> (0=lowest; 5=highest)	<b>College Decile</b> <b>4</b> (0=lowest; 9=highest)
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**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:

<b>CEI: 4.5</b> (1=lowest; 7=highest)
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**SUMMATIVE ITEMS**

	N	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median	DECILE RANK Inst	College
The lab section as a whole was:	12	33%	33%	25%	8%			4.0	4	6
The content of the lab section was:	11	18%	36%	36%	9%			3.6	2	3
The lab instructor's contribution to the course was:	12	42%	33%	8%	17%			4.2	3	5
The lab instructor's effectiveness in teaching the subject matter was:	12	42%	17%	25%	8%	8%		4.0	3	5

**STUDENT ENGAGEMENT**

<b>Relative to other college courses you have taken:</b>	N	Much Higher (7)	(6)	(5)	Average (4)	(3)	(2)	Much Lower (1)	Median	DECILE RANK Inst	College
Do you expect your grade in this course to be:	12	8%		17%	67%	8%			4.1	0	1
The intellectual challenge presented was:	12	25%	42%		33%				5.9	6	6
The amount of effort you put into this course was:	12	25%	8%	17%	50%				4.5	0	1
The amount of effort to succeed in this course was:	12	25%	33%	8%	33%				5.8	5	5
Your involvement in course (doing assignments, attending classes, etc.) was:	12	17%	17%	8%	50%			8%	4.3	0	0

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: 6.5 (N=11)**

<b>Under 2</b>	<b>2-3</b>	<b>4-5</b>	<b>6-7</b>	<b>8-9</b>	<b>10-11</b>	<b>12-13</b>	<b>14-15</b>	<b>16-17</b>	<b>18-19</b>	<b>20-21</b>	<b>22 or more</b>
	9%	36%	9%	9%	9%	18%	9%				

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

**Class median: 6.0 (N=11)**

<b>Under 2</b>	<b>2-3</b>	<b>4-5</b>	<b>6-7</b>	<b>8-9</b>	<b>10-11</b>	<b>12-13</b>	<b>14-15</b>	<b>16-17</b>	<b>18-19</b>	<b>20-21</b>	<b>22 or more</b>
	27%	18%	18%	18%	9%						9%

What grade do you expect in this course?

**Class median: 2.9 (N=11)**

<b>A (3.9-4.0)</b>	<b>A- (3.5-3.8)</b>	<b>B+ (3.2-3.4)</b>	<b>B (2.9-3.1)</b>	<b>B- (2.5-2.8)</b>	<b>C+ (2.2-2.4)</b>	<b>C (1.9-2.1)</b>	<b>C- (1.5-1.8)</b>	<b>D+ (1.2-1.4)</b>	<b>D (0.9-1.1)</b>	<b>D- (0.7-0.8)</b>	<b>E (0.0)</b>	<b>Pass</b>	<b>Credit</b>	<b>No Credit</b>
9%	18%		27%	18%	27%									

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

**(N=11)**

<b>In your major</b>	<b>A core/distribution requirement</b>	<b>An elective</b>	<b>In your minor</b>	<b>A program requirement</b>	<b>Other</b>
73%	18%			9%	

**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:	12	42%	33%	8%	17%			4.2	4	6
Lab instructor's preparedness for lab sessions was:	11	45%	27%	18%	9%			4.3	4	
Quality of questions or problems raised by the lab instructor was:	12	42%	42%	8%	8%			4.3	4	6
Lab instructor's enthusiasm was:	12	67%	17%	8%	8%			4.8	6	6
Student confidence in lab instructor's knowledge was:	12	58%	25%	8%	8%			4.6	4	6
Lab instructor's ability to solve unexpected problems was:	12	42%	33%	17%	8%			4.2	4	
Answers to student questions were:	12	33%	17%	17%	33%			3.5	1	2
Interest level of lab sessions was:	12	42%	42%	8%	8%			4.3	5	
Communication and enforcement of safety procedures were:	12	58%	8%	17%	17%			4.6	6	
Lab instructor's ability to deal with student difficulties was:	12	50%	17%	25%	8%			4.5	6	7
Availability of extra help when needed was:	12	42%	33%	8%	8%	8%		4.2	4	5
Use of lab section time was:	12	33%	42%	8%	17%			4.1	4	6
Lab instructor's interest in whether students learned was:	12	50%	17%	17%	17%			4.5	4	6
Amount you learned in the lab sections was:	11	36%	36%	18%	9%			4.1	4	6
Relevance and usefulness of lab section content were:	12	33%	42%	17%	8%			4.1	3	4
Coordination between lectures and lab activities was:	12	25%	25%		25%	17%	8%	3.0	1	
Reasonableness of assigned work for lab section was:	12	17%	25%	25%	25%		8%	3.2	1	1
Clarity of student responsibilities and requirements was:	12	33%	25%	25%	17%			3.8	2	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 it was
2. Yes because as an EE interested in analogy devices, I probably won't ever study ckts again. lol
3. not really
5. Yes. I learned a lot about implementing Verilog.
6. This class was fascinating, and engaged my problem solving skills in new ways.
7. Yes, I had to learn a whole new machine language to complete this course.
8. This class was intellectually stimulating as there is a lot of trial and error to go through with coding and finding out what works and what doesn't.

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

1. practicing
2. Professor attitude.
3. nothing, my lab partner never cooperate with me
4. Hands on learning is the best. I wish lecture supplemented labs instead of the other way around.
6. The ability to learn as a group and to receive assistance from the professor when needed.
7. Verilog programming
8. Writing code.
9. I really enjoyed working with the FPGA boards and actually seeing how they behave and troubleshooting them to get them to work. It was very cool to see

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

2. Amount of labwork.
3. my lab partner, the professor.
6. The difficulty of use of the Quartus software, particularly for setup.
7. Instructor's unwillingness to even consider listening to a dissenting thought, not to mention preventing from speaking an opinion on the topic.
8. A lot of work to put into the labs with the allotted time given.
9. The most frustrating thing I always seemed to run into was Verilog syntax. A lot of times there would be an easier way to do something that we hadn't specifically learned.

#### What suggestions do you have for improving the class?

2. WAAAAAY less lab work. Bitte.
3. it is stupid that our college only have 2 EE 271 professor
4. During lab, I think there needs to be more lab instructors. Getting a hold of Ms. Hamilton could be very difficult since so many people needed help. Spent a lot of time just sitting on my hands till she was available. Otherwise, I think she's a great instructor. I'm going to retake this class next quarter again, because I think she's a great instructor and I want to learn from her.
5. I would love if there was more focus on using ModelSim and debugging in general.
6. When communicating with students, allow students an adequate amount of time to phrase their question before attempting to answer it.
7. Instructor often bulldozed any viewpoints not in line with her thoughts, creating an uncomfortable learning environment where my intellect wasn't respected. Overall, this made me unwilling to engage with the instructor, because questioning assumptions was not encouraged. In fact, one couldn't help the feeling the instructor had no interest in hearing our opinions. This created a condescending learning environment that did not feel safe for exploration.
8. Make the labs more relevant with our knowledge in class; have more time available outside lab hours.
9. I wish there could be a whole class for verilog

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).

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<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.