

B EE 332 AB  
Devices And Circuits II  
Course type: Face-to-Face

Evaluation Delivery: Online  
Evaluation Form: H  
Responses: 13/24 (54% 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>4.7</b> (0=lowest; 5=highest)	<b>College Decile</b> <b>8</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: 5.9</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:	13	54%	31%	15%				4.6	7	8
The content of the lab section was:	12	50%	42%	8%				4.5	7	8
The lab instructor's contribution to the course was:	13	69%	23%	8%				4.8	7	8
The lab instructor's effectiveness in teaching the subject matter was:	13	69%	15%	15%				4.8	7	9

**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:	13	38%	38%	8%	15%				6.2	9	9
The intellectual challenge presented was:	13	23%	69%	8%					6.1	8	7
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%	62%	15%					6.1	7	6
Your involvement in course (doing assignments, attending classes, etc.) was:	13	46%	54%						6.4	8	8

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: 7.2 (N=13)**

<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>
		23%	31%	23%		8%		8%			8%

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

**Class median: 6.5 (N=13)**

<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>
	23%	23%	8%	15%	8%	8%	8%				8%

What grade do you expect in this course?

**Class median: 3.6 (N=13)**

<b>A</b> (3.9-4.0)	<b>A-</b> (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>C+</b> (2.2-2.4)	<b>C</b> (1.9-2.1)	<b>C-</b> (1.5-1.8)	<b>D+</b> (1.2-1.4)	<b>D</b> (0.9-1.1)	<b>D-</b> (0.7-0.8)	<b>E</b> (0.0)	<b>Pass</b>	<b>Credit</b>	<b>No Credit</b>
23%	38%	23%	15%											

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

**(N=13)**

<b>In your major</b> 77%	<b>A core/distribution requirement</b> 15%	<b>An elective</b>	<b>In your minor</b>	<b>A program requirement</b> 8%	<b>Other</b>
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**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	54%	38%	8%				4.6	6	8
Lab instructor's preparedness for lab sessions was:	13	62%	38%					4.7	6	
Quality of questions or problems raised by the lab instructor was:	13	69%	31%					4.8	8	9
Lab instructor's enthusiasm was:	13	69%	23%	8%				4.8	6	7
Student confidence in lab instructor's knowledge was:	13	62%	38%					4.7	5	6
Lab instructor's ability to solve unexpected problems was:	13	54%	46%					4.6	6	
Answers to student questions were:	13	62%	38%					4.7	7	8
Interest level of lab sessions was:	13	62%	38%					4.7	8	
Communication and enforcement of safety procedures were:	13	62%	38%					4.7	7	
Lab instructor's ability to deal with student difficulties was:	13	62%	38%					4.7	7	8
Availability of extra help when needed was:	13	69%	31%					4.8	8	8
Use of lab section time was:	13	62%	38%					4.7	7	8
Lab instructor's interest in whether students learned was:	13	62%	38%					4.7	6	8
Amount you learned in the lab sections was:	13	46%	38%	15%				4.4	5	7
Relevance and usefulness of lab section content were:	13	62%	31%	8%				4.7	7	8
Coordination between lectures and lab activities was:	13	54%	31%	15%				4.6	7	
Reasonableness of assigned work for lab section was:	13	54%	31%	15%				4.6	6	8
Clarity of student responsibilities and requirements was:	13	62%	31%		8%			4.7	7	8

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### STANDARD OPEN-ENDED QUESTIONS

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

1. These labs, though arduous at times, were pretty on par with what we were learning in class and so I think it was very intellectually stimulating. We got to learn first-hand how to apply our knowledge to a real-world situation.
2. The design project was a good way to put the students in a position of a design engineer, rather than following instructions, we had to develop a circuit to meet specs. a little different than we're used to and its a rewarding experience
3. Yes, it had many moments of intellectual stimulation. But equally, if not more so, the challenge was simply the struggle of getting circuits to behave. I think that the current sources were the most challenging to understand. The lab 4 amplifier was also a challenge as it contains transistors meant for amplification, two of which were for protection (which we wouldnt have known until we asked about it), but for some reason the circuit needed an OPAMP, which is just an amplifier. Need to have an amplifier to build an amplifier; putting the cart before the horse. Still not sure what that was for.
4. This lab was great, we covered the basics of BJTs and got to build a lot of applicable circuits.
5. The lab was a great hands on approach to the material that we were presented in lecture.
6. LABS were challenging and interesting.

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

1. Doing the actual labs, making mistakes and learning from them. Gathering data and asking questions were very helpful to learning.
2. troubleshooting lab circuits, and trying to understand how the components contribute to the design in the process
3. Im torn. On the one hand I dont think we explored enough in this course. I would have liked to have seen more circuits, more testing, more design. But on the other hand, I feel as though we didnt focus on anything in too much detail; concepts have not been solidified. There is simply too much work to be done and not enough time to actually investigate the theory.
4. Building the circuits, and Nicole's explanations. Nicole is a great teacher, and is super helpful. She will be sorely missed!
5. Nicole was fantastic in her explanations of the circuits and came in outside of the scheduled lab time to help students.
6. LABS

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

1. Nothing honestly.
2. some of the labs required some tedious tasks that took some time away from understanding the key concepts
3. A lack of knowing instructor expectation. The instructor allows us to know her results when performing the experiment and acknowledges we wont "get the same value". But she gives a specific value, as opposed to an acceptable range of values, and provides no insights about what we can expect to see. The parts were not tested prior, so the instructor has no knowledge if the part is faulty or not, or what its particular operating characteristics are, yet we the student are somehow supposed to recognize a bad part based solely on behavior that only the teacher would know is atypical. Entire DAYS have been wasted in lab trying to get perfectly functioning circuits to "work"
4. Probably the amount of work. As most EE lab classes go, there is never enough time to complete the amount of work that is required for the lab. Students just cant complete the labs as fast as the teachers think they can. Most of the labs I spent just running through the motions, collecting data and writing a report. I didn't have the chance to breath and sit and actually try to figure out whats going on in the circuit. I wish I had the chance to soak in a little more knowledge of what was going on. I just needed more time.
6. None

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

1. KEEP NICOLE
2. so far so good. no suggestions come to mind.
3. Either test parts prior to class or be willing to provide us with acceptable operating ranges as opposed to specific values. I would like to see more circuits but I would like to build these up piece by piece, understanding each subcircuit, to gain a fully and more comprehensive understanding of whats going on.
4. Less work, and not because students are lazy - but so they can actually understand what's going on and soak in the information given to them.
6. Keep up the great work Nicole, Thank you.
7. NICOLE YOU THE BEST!!! Both 271 and 332 lab were incredible experiences that will always be with us. WILL ALWAYS REMEMBER HOW AMAZING YOU ARE. Love you so much

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>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.