

B EE 233 BA
Circuit Theory
Course type: Face-to-Face
Taught by: Nicole Hamilton
Instructor Evaluated: Nicole Hamilton-Lecturer

Evaluation Delivery: Online
Evaluation Form: H
Responses: 21/25 (84% 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
4.2
(0=lowest; 5=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: 5.7
(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	College
The lab section as a whole was:	21	33%	29%	29%	5%	5%		3.9	3	
The content of the lab section was:	21	48%	24%	24%		5%		4.4	6	
The lab instructor's contribution to the course was:	21	43%	24%	19%	10%	5%		4.2	3	
The lab instructor's effectiveness in teaching the subject matter was:	21	48%	14%	24%	14%			4.3	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	College
Do you expect your grade in this course to be:	21	19%	24%	24%	33%				5.2	4	
The intellectual challenge presented was:	21	24%	43%	24%	10%				5.9	6	
The amount of effort you put into this course was:	21	43%	38%	19%					6.3	8	
The amount of effort to succeed in this course was:	21	43%	29%	24%	5%				6.2	8	
Your involvement in course (doing assignments, attending classes, etc.) was:	21	38%	38%	24%					6.2	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: 9.5 (N=20)

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%	20%	20%	5%	15%	20%	5%				10%

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

Class median: 7.0 (N=20)

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%	20%	20%	20%	10%	10%					5%

What grade do you expect in this course?

Class median: 3.3 (N=19)

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
5%	32%	26%	21%	5%	5%							5%		

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

(N=20)

In your major	A core/distribution requirement	An elective	In your minor	A program requirement	Other
85%				10%	5%

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:	20	30%	30%	30%	10%			3.8	2
Lab instructor's preparedness for lab sessions was:	21	43%	10%	33%	5%	10%		3.8	1
Quality of questions or problems raised by the lab instructor was:	20	40%	35%		25%			4.2	4
Lab instructor's enthusiasm was:	21	57%	14%	24%	5%			4.6	4
Student confidence in lab instructor's knowledge was:	21	52%	24%	19%	5%			4.5	3
Lab instructor's ability to solve unexpected problems was:	21	43%	33%	14%	10%			4.3	4
Answers to student questions were:	20	40%	20%	20%	15%	5%		4.0	2
Interest level of lab sessions was:	21	48%	14%	24%	10%	5%		4.3	5
Communication and enforcement of safety procedures were:	21	52%	10%	24%	14%			4.5	5
Lab instructor's ability to deal with student difficulties was:	21	43%	29%	19%	5%		5%	4.2	5
Availability of extra help when needed was:	21	52%	14%	24%	5%	5%		4.5	5
Use of lab section time was:	21	29%	29%	29%	10%	5%		3.8	2
Lab instructor's interest in whether students learned was:	21	52%	19%	10%	14%	5%		4.5	5
Amount you learned in the lab sections was:	21	43%	29%	19%		10%		4.2	5
Relevance and usefulness of lab section content were:	21	43%	33%	19%			5%	4.3	4
Coordination between lectures and lab activities was:	21	38%	10%	38%	10%		5%	3.4	2
Reasonableness of assigned work for lab section was:	21	43%	19%	24%	10%		5%	4.1	4
Clarity of student responsibilities and requirements was:	21	38%	29%	14%	14%		5%	4.1	3

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STANDARD OPEN-ENDED QUESTIONS

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

1. Lab is interesting i enjoy applying the theory.
2. The class was intellectually stimulating. It did not stretch my thinking too much as most of the work was busy work.
3. Yes
5. Yes
7. this class is a lot of practical
8. NO strict due date, that's very good. Flexable
9. Yes, I learned a lot from the lab and thought it helped my understanding of the material we learned in class.
11. The lab work definitely stimulating and gave me a better idea of what Engineering as a profession is like. Learning how to use new equipment was especially fun and the instructor's expertise was very helpful in figuring it out.
12. The lab was challenging because we had to use new machines that we did not use before and getting the measurements were sometimes difficult.
13. Yes. The grades students received is a clear reflection of how much time and effort they put towards the lab and how well they follow directions. The course prepares a student for conduct expected on the field once they start their career.
14. Yes, because it challenged us to figure out realistic problems.
15. The labs were interesting because they gave us a chance to use the equipment, but the contents of the labs were tedious and uninteresting. The problem was that the contents were so detached from the course that it ended up just being busy work. I felt like I was switched off and completely unstimulated when I was working through the labs, and maybe that's part of training to become an effective subordinate.
16. Helped me understand lab equipment

What aspects of this class contributed most to your learning?

1. Lab instructor assistance
2. The extra lab sections and open lab hours were the most helpful to me.
3. being able to 'correctly' answer and explain questions.
5. You helping
6. Having flexible turn-in times for labs was nice when struggling with the labs.
7. it improves my lab skill better
9. Using the circuits and being more hands on.
11. The lab instructor was very helpful and enthusiastic when answering questions. It was clear that she wanted to be there and that made lab a lot more fun. Her hours were very flexible, aside from just regularly set aside lab hours she would also come in after hours and on Fridays to help groups with their labs. There were times when there were only a few people who showed up for these extra hours, but she was there nonetheless willing and able to help us.
12. Open lab hours
13. How well-written the lab assignments and instructions were, as well as contributions from the lab instructor.
14. Building physical circuits and analyzing how they vary from the ideal.
15. The lab instructor did a good job of explaining how to use the equipment and going around the class to answer questions as we were working through the procedures. I think she was a little stretched with the number of questions that came up, mostly because we were working with this equipment for the first time.
16. Working in lab after hours

What aspects of this class detracted from your learning?

1. Long explanations at the start of lab
2. When we started a new lab a large portion of the lab period was instruction on how to do the lab.
3. Spending time fumbling around for answers when there was no clear path or knowledge required was beyond our capabilities.
7. it included a lot knowlegde from the lecture and help me understand the lecture better
9. The three lab sessions that we had no instruction. Instructor didn't give us enough lab time during the quarter.
11. Initially there was a bit of a learning curve learning the interface on the Oscilloscope and Function Generator, but after that was taken care of the next labs went very smoothly.

12. N/A
13. Not something the course itself caused, but having to deal with faulty equipment had caused major setbacks on progress on the assignments and used up valuable time.
14. Repetitive steps and excess data collection.
15. The amount of time spent out of lab giving meaningless answers to meaningless questions. I feel like I did try to get something out of the course, but it's difficult to engage with material that doesn't apply outside of the box that is our labs. I can see how there are connections to situations that might come up and if it engaged our thinking about electronics that would be one thing, but it was just do-and-tell.
16. Space in the labs

What suggestions do you have for improving the class?

1. less time focused on explaining lab more on doing it
2. If there was more material available before the lab time I believe that the lab period would be more useful.
3. Have additional "notes" for each of the procedures in the lab compiled from mistakes students have consistently made in the past or information that proved to be necessary. This is to ensure completeness in the lab report so that if there is no time with the instructor the student can still complete the lab.
4. It would be nice if th instructor where available more often during the week on campus.
5. Nothing
6. The expectations are not that good in the labs at times. Also, for how much time is spent on these labs, the grading methods are harsh. Students spend multiple hours, deal with faulty lab equipment constantly and then people get docked for things like screenshots being a little too small? There is a zoom button when pulling up a document. I would suggest not looking for anyway to take points off, but instead look at where to give points.
7. I need more than 2 hours / week to do the lab.
9. none
10. Clearer instructions and more defined requirements. Grading seemed to be a hit or miss beeing weighed great on some things and less important on others but wasn't clear.
11. N/A
12. Instructor should explain better and help with screenshots rather than saying the screenshots were good but they were actually what she wanted.
13. None
14. More analysis in place of screenshots.
15. I think the labs would be more effective if they started with an introduction to the equipment so that there were fewer questions as we went through the procedures. I know an effort was made at acclimating us to the environment, but it seemed like a lot of time was spent on just figuring out how to operate stuff in the lab. The time constraints of the lab each week make it difficult to do anything more meaningful, but I think the learning aspect of the course would be more effective if the labs used the same setups each week and built on each other so that we ended up with something meaningful that we could understand the applications for. I had a really difficult time in this course connecting my vast experience with electronic devices with anything in the class, and it seems like such a waste in the 21st century to be teaching electronics as if it's something we don't experience every moment of every day.
16. Bigger lab room or more sections

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.