

B EE 496 B
Capstone Project In Electrical Engineering II
Course type: Face-to-Face

Evaluation Delivery: Online
Evaluation Form: A
Responses: 8/8 (100% very 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:

Median 4.5 (0=lowest; 5=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:

CEI: 6.2 (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 course as a whole was:	8	50%	50%					4.5	6	
The course content was:	8	50%	50%					4.5	6	
The instructor's contribution to the course was:	8	62%	38%					4.7	6	
The instructor's effectiveness in teaching the subject matter was:	7	43%	57%					4.4	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:	8	62%	25%		12%				6.7	9	
The intellectual challenge presented was:	8	62%	25%		12%				6.7	9	
The amount of effort you put into this course was:	8	62%	25%		12%				6.7	9	
The amount of effort to succeed in this course was:	7	57%	29%		14%				6.6	9	
Your involvement in course (doing assignments, attending classes, etc.) was:	8	50%	38%		12%				6.5	9	

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: 6.8 Hours per credit: 2.3 (N=8)

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
		25%	38%	12%	12%						12%

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

Class median: 6.8 Hours per credit: 2.3 (N=8)

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
		25%	38%	12%	12%			12%			

What grade do you expect in this course?

Class median: 3.9 (N=7)

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
57%	14%	29%												

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

(N=7)

In your major	A core/distribution requirement	An elective	In your minor	A program requirement	Other
57%				43%	

STANDARD FORMATIVE ITEMS

	N	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median	DECILE RANK	
									Inst	College
Course organization was:	8	50%	38%	12%				4.5	7	
Clarity of instructor's voice was:	8	50%	38%	12%				4.5	4	
Explanations by instructor were:	8	50%	38%	12%				4.5	5	
Instructor's ability to present alternative explanations when needed was:	8	62%	25%	12%				4.7	7	
Instructor's use of examples and illustrations was:	8	50%	50%					4.5	5	
Quality of questions or problems raised by the instructor was:	8	50%	50%					4.5	6	
Student confidence in instructor's knowledge was:	8	62%	38%					4.7	5	
Instructor's enthusiasm was:	8	62%	38%					4.7	5	
Encouragement given students to express themselves was:	8	62%	25%	12%				4.7	5	
Answers to student questions were:	8	50%	50%					4.5	5	
Availability of extra help when needed was:	8	50%	38%	12%				4.5	5	
Use of class time was:	8	38%	50%	12%				4.2	5	
Instructor's interest in whether students learned was:	8	50%	38%	12%				4.5	4	
Amount you learned in the course was:	8	50%	38%	12%				4.5	6	
Relevance and usefulness of course content were:	8	50%	50%					4.5	6	
Evaluative and grading techniques (tests, papers, projects, etc.) were:	8	38%	50%	12%				4.2	5	
Reasonableness of assigned work was:	8	38%	50%	12%				4.2	5	
Clarity of student responsibilities and requirements was:	8	38%	50%	12%				4.2	4	

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STANDARD OPEN-ENDED QUESTIONS**Was this class intellectually stimulating? Did it stretch your thinking? Why or why not?**

1. The capstone project stretched my thinking. We learned to apply our knowledge and work as a team.
2. Very Useful towards understanding how a real project would work as an Electrical Engineer. Just being resourceful gets you a long way.
3. Yes. Was playing in a field which we had little knowledge of. Had to do a lot of research to know how to even begin.
4. Yes
5. It definitely Stretch my thinking, capstone take a lot of time and individual effort to complete it. A lot of independent research is required to do and you can to challenge yourself in order to accomplish well.

What aspects of this class contributed most to your learning?

1. The research and discussion contributed the most to our learning.
2. Practicing coding and learning how an overall project is laid out, planned and executed.
3. Android coding. Creating apps.
5. I think having task to do each week, and set deadline for those tasks to be complete on time.

What aspects of this class detracted from your learning?

1. This is the first time we have been working on a concrete project, and we made a lot of mistakes on the parts ordering, but at least we learnt from it.
2. Not being able to fully communicate with teammates and work things out the way you want.
3. No previous knowledge of how to create an Android app.
5. Just frustration on little think things when it doesn't go your way. Not able to communicate with others. Capstone is a teamwork and everyone gotta do their job in order to complete it.

What suggestions do you have for improving the class?

1. Deadline and time are important to succeed in this class. We should set a specific deadline to complete each task, and need to devote a lot of time on it.
2. Setting a bit more firm schedule.
3. Sponsor should've contributed a bit more. Being more involved with the students.

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.