Spring 2023 - Matthew Barry MEMS 0031 - ELECTRICAL CIRCUITS - 1050 - Lecture

Project Title: **2234 - Teaching Survey Spring 2023**

Courses Audience: **70**
Responses Received: **60**
Response Rate: **85.71%**

Report Comments

Included in this report:

- Summary of responses to scaled questions
- Response breakdowns
- Student comments
- Results to instructor added custom questions (if applicable)

Understanding and using student feedback:

- We have resources that can help with interpreting your teaching survey report.
- Schedule a meeting with a teaching consultant who can help you interpret your results and develop a course of action if necessary.
- In the future:
  - Discuss, teach, and model giving meaningful feedback with your students.
  - Request a midterm survey of your course and give students multiple opportunities to practice giving feedback.

Contact OMET

Creation Date: **Monday, June 05, 2023**

University Questions

Summary table

Scale: strongly disagree (1), disagree (2), neutral (3), agree (4), strongly agree (5)

	Invited Count	Response Count	Response Rate	Mean	Mode	Median	SD
The instructor stimulated my thinking.	70	60	85.71%	4.37	4	4.00	0.61
The instructor was enthusiastic about teaching the course.	70	60	85.71%	3.92	4	4.00	1.00
The instructor presented the course in an organized manner.	70	60	85.71%	4.40	5	5.00	0.72
The instructor maintained an environment where students felt comfortable participating.	70	60	85.71%	4.38	5	4.00	0.67
The instructor maintained an environment where students felt comfortable seeking assistance.	70	60	85.71%	4.32	5	4.00	0.75
The instructor provided helpful feedback.	70	60	85.71%	4.23	5	4.00	0.79
Assignments contributed to my understanding of the subject.	70	60	85.71%	4.35	5	5.00	0.80
Overall of All Questions	490	420	85.71%	4.28	-	-	0.77

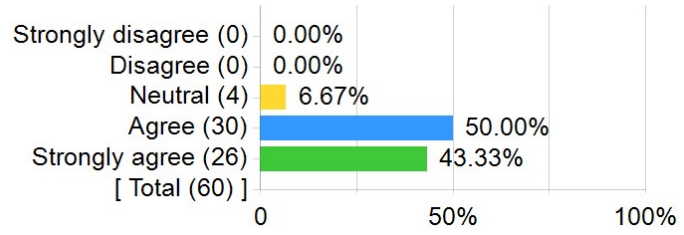
Overall effectiveness

Scale: ineffective (1), only fair (2), competent (3), very good (4), excellent (5)

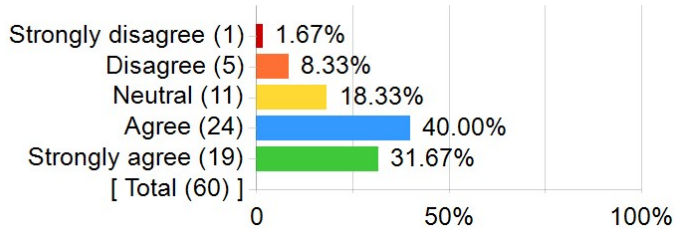
Question	Invited Count	Response Count	Response Rate	Mean	Mode	Median	SD
Express your judgment of the instructor's overall teaching effectiveness.	70	60	85.71%	4.25	5	4.00	0.86

Response breakdown

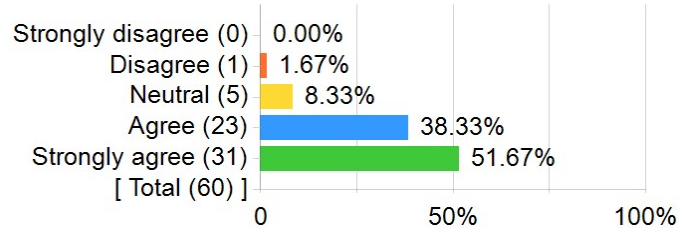
1. The instructor stimulated my thinking.



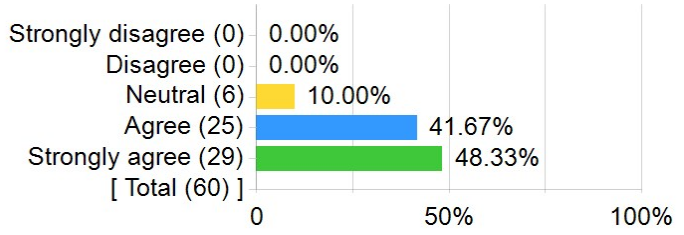
2. The instructor was enthusiastic about teaching the course.



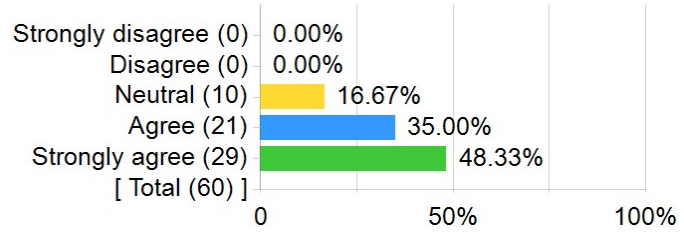
3. The instructor presented the course in an organized manner.



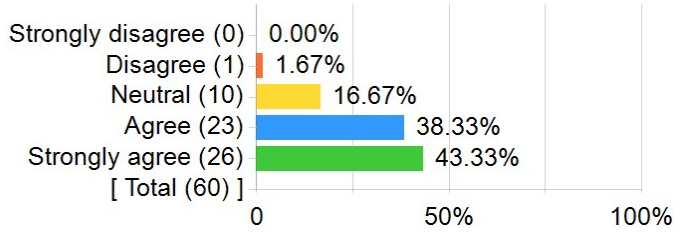
4. The instructor maintained an environment where students felt comfortable participating.



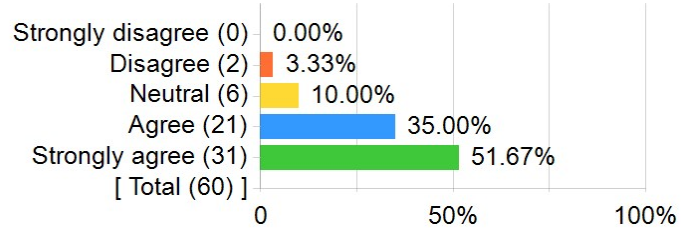
5. The instructor maintained an environment where students felt comfortable seeking assistance.



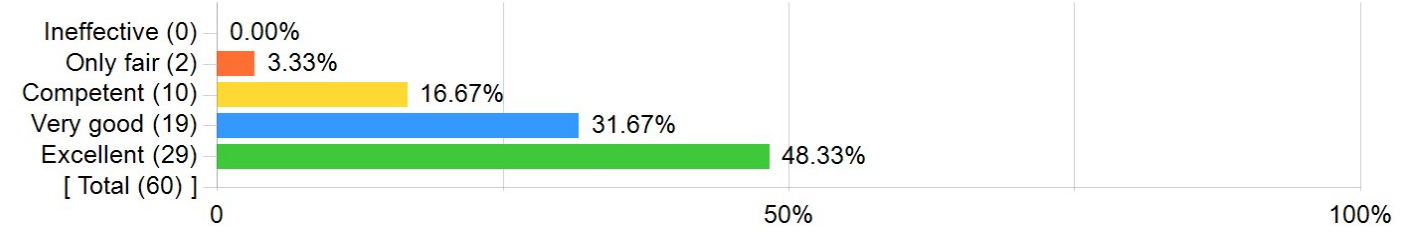
6. The instructor provided helpful feedback.



7. Assignments contributed to my understanding of the subject.



Express your judgment of the instructor's overall teaching effectiveness.



Comments

What did the instructor do to help you learn?

Comments
Was able to break down complex topics well.
Vivid class
I enjoyed tophat. Having access to the homework was helpful, was able to check my work and give my best effort. The flipped format was useful and having access to resources and resources on github helped a lot with my studying. The quizzes were fair and worked well for me.
Challenging assignments and very down to earth teaching. The flipped format is something I personally had no qualms with and definitely helped me learn.
Dr. Barry made class enjoyable predictable to the point where electrical circuit content seemed to have a natural progression. This improved my understanding of class material.
I forgot to mention in the thermo survey so this goes for both. The flipped lecture model for both circuits and thermo is very good. All of the resources provided in both classes are helpful and it's up to us to make use of whichever ones work best per person
Basic knowledge of how to solve liner circuits
The flipped format was helpful and working on problems in– class
Dr. Barry Strengthened by knowledge of circuits through the flipped lecture format.
The Flipped format resulted in a double dipping of material
by not assigning a massive project and focusing on course material i feel as though I learned the important material better
A lot
I really liked the format of the quizzes and homework lining up each week. I also liked the take home exams because they allowed me to better use the resources I had learned and made it less about memorization.
Circuits
The instructor helped me learn multiple different methods of solving circuits that are applicable to almost any configuration.
Send out hw with the answers. Top hat and examples
He did the examples during class which help me a better understand.
Walked–through problems and answered all questions asked.
Circuit
Circuits
In–class practice problems and clear explanations of all material.
explain the in class example clearly and provide a lot of resource
I mostly learned on my own but that is the point of the reversed class
Gave detailed homework solutions
Circuits and stuff
Understanding of circuitry and how to evaluate various circuits
The in person lectures for this class were the best part of the semester. It felt like I was being taught by an actual human being. While I appreciate the briefness of the lecture videos, they still sound like a text–to–speech bot presented them. Continuing to have assignments due throughout the whole semester was very nice. It felt like there was some actual motivation to learn the material since not learning the material would have actual continual consequences. Unlike thermodynamics, but that is a different survey.
The multiple methods of information deliver were very helpful. Through TopHat, lectures, and homework, concepts were seen repeatedly giving me a lot of opportunities to see material and figure out ways to approach circuit problems as a whole.
Flipped format helped compound knowledge. Especially with the lecture videos to check yourself. Homework with solutions helped motivated students learn better through the homework.
He provided homework that really reinforced my understanding of the course content. The examples in class were also good for teaching the course concepts.
I really liked the flipped lecture format. The lecture questions were great, and I feel the in–class lectures were more effective given I was already familiar with the topics.
He provided the lecture videos to refer to outside of class when learning each section.
Flipped lecture structure. Example problems done during class really helped to solidify the concepts learned through the tophat videos

Comments
The top–hat questions were very helpful.
When concepts were deliberately elaborated on (as if I were a young child). It was kind of rare, but some days you switched up your teaching style. I don't know if it was mood dependent, topic dependent, or at random, but your attitude seemed to fluctuate. This had a pretty direct affect on my learning. This isn't purely helpful, and I would love to see more consistency (consistently good). I do appreciate that you emphasize problem solving skills, and attempt to teach it so. Expectations were generally very very high, and if students were to engage in the content with that in mind they would better from it. Due to the nature of the content (and just students too), however, that isn't the case. Assignments and activities were very clearly made to encourage us to engage with those high expectations. It made me want to be good at the problem solving, it made me want to push myself, but the style of concepts just isn't that conducive. That doesn't really sound like positive feedback, but it is. Other things; I had you in a previous class (Statics 1), and you changed and adapted the class format a bit. A lot of the changes were helpful in one way or another. Take home midterms but in–class quizzes is a good example of a change that set a high expectation but as an encouraging challenge. I understand the risk of take–home midterms, but I don't see another way of creating a test that adequately assesses our abilities and is feasible to take. The in–class examples themselves were good but IMO can be improved.
Dr. Barry provided both online videos coupled with in–class example and homework format helped to reinforce concepts pretty well
Provided a good atmosphere for learning. Gave a lot of resources. Had open office hours. Went over examples in class and provided videos outside of class
Flipped classroom helped
I prefer the format of how everything currently is and think it really helped me to understand the content. Quizzes, homework, tophat questions were all really great
Posted lecture videos and notes as well as the empty slides we used in class
lots of examples
Going over problems in class and having access to a bank of problems in tophat
The flipper style allows me to learn a lot better being able to rewatch lectures is helpful.
In class examples and repetition of topics. Providing a step by step process to solve problems
Recorded lecture videos at the start of the year and then handwritten notes at the end allowed me to take detailed and organized notes on course content.
Gave challenging in–class examples which helped show how to use multiple parts of the class in combination to solve a problem
Went through example problems.
RLC circuits using differential equations, analyzing DC circuits, Op–amps.
Provided rewatchable online lectures and went through examples in class.
Professor Barry is without a doubt the most engaging instructor I've had during my time at Pitt. He does an amazing job of interacting with the students and creates such an enjoyable learning environment. Also, I really appreciate how Professor Barry tries to learn all the students names and makes an effort to get to know everyone. He treats all his students with respect.

What could the instructor do to improve?

Comments
I don't know Why my hw didn't get full marks
When it comes to preparing for midterms and finals, could provide more practice or help.
I appreciated the way Exam 1 and Exam 2 were administered, and I appreciated how they were administered uniquely. If you could somehow convince my brain to retain the reason why we care about op–amps, that would be the only thing I can think of for this class.
Circuits course organization surrounding hw, quizzes and the final project kinda fell apart near the end of this course
He did so good!
Honestly, maybe more out of class resources. The textbook is horrendous. Hate that thing. Update that textbook.
The one thing I would say that Dr. Barry could do to improve would be his enthusiasm in circuits compared to his enthusiasm in thermo
I would say make all the top hats due on friday of week that their due.
either switch to in person lectures or make the tophat videos longer
A lot

Comments
In my opinion, adding a small participation grade to the tophat questions and worksheets would have incentivized me to complete them. I wasn't the biggest fan of having the homework solutions available to me, because it enabled me to just copy down the solutions.
More lectures at the end
I think the instructor did well.
Flipped class didn’t help grasping the info as best as I could
Maybe, he could do more examples
Upload the final lectures to tophat and have questions with them.
Dr. Barry is awesome.
More small/quick type practice problems would be nice
N/A
upload solution slide for the in class example
He did fine
Stop using the lecture videos with tophat. The material is much easier to understand when you are teaching yourself.
N/A
Sync the tophat folders with what will be on the quiz. Having class cancelled / reordered made preparing for quizzes confusing
I can't talk too much trash on this course because Dr. Barry was not expecting to teach it. Him teaching the course was as much news to us as it was to him, so I can't dog on him too much for being unprepared. The exams and homework have been fair, and the material has not been agonizing. The only thing I have wanted from circuits lectures (in this class or in Phys II) is an actual application of what we're doing. I can analyze the given circuits, and that's great, but I don't know what anything we've studied this semester actually does. I don't feel like I could design any circuit. My understanding is entirely theoretical.
I would have liked to do the team project, but I understand why it didn't happen do to time. Not really about the instructor, I think this class should definitely have a lab section so we can apply the concepts we learn in class.
Dedicate more of the in class time to open questions because of the flipped classroom
Do not use top hat in order to do the example problems, because it was kind of hard to understand the writing used by the tablet/tophat combo.
I wish the homeworks didn't have keys. I don't think I learned as well with them. I think giving just the answers without the solutions would be more effective.
He could make homework more focused on the concepts and not cover very specific situations or overcomplicate the introduction of topics
less mean </3
same as all of Barry's classes just do more examples.
I don't like flipped classes. I don't like flipped classes. Not saying it shouldn't be flipped, I just don't like flipped classes. The videos aren't the worst but I will be relatively unengaged with the video no matter what. That being said, there are some things that I think could improve the class. Just keep in mind some of them likely exist to better the format and others may work to undo the format. Starting with the TopHat – Using TopHat itself if fine, no problems. Obviously having the videos vertically formatted when embedded isn't fun, but I prefer it than having to scour through canvas modulus. It is harder to ignore the video when it is the TopHat page. The 'video questions' were alright, just a slight elaboration of the videos. In Statics, you had video questions, reading questions, and in–class questions, all which counted as a part of a grade. This year, you started with video questions, and in–class questions, but then you phased out the in–class questions. None of this seems to count towards a percent of your grade. My personal take on this: meet in the middle. Statics had TOO much, circuits feels fine but might be better with a bit more. Given there is no reading I would recommend implementing more 'in–class' questions. [IN CLASS QUESTIONS WEREN'T FOR IN CLASS BUT JUST WHAT THEY WERE CALLED ON THE TOPHAT]. Don't give us thirty, but maybe a handful questions that are similar to the video questions but with a bit of computation. However, I feel like implementing these should accrue to a small percent of the grade, both video questions and 'in–class'. Surely 5% shouldn't be too bad. I don't know how you develop the grading skews (squew?, whatever), but something that in theory is harder to ignore. That brings me to homework, which seems to account for a laughable percent. Right, I understand that in the context it was assigned it wouldn't make that much sense. In general, home work was fine. Usually difficult. It felt the the set up was 1 simple question (not easy, simple), 1 intermediate question, then 2–4 challenge questions. After doing the problem, a challenge problem or two might appear intermediate but wouldn't feel like it when being solved. Challenge problems might be long, complex, or both, and so some homework felt tedious while others felt impossible. The challenging problems probably were proportionally difficult to the concepts themselves, so I suppose that makes sense. Homework wasn't really a huge issue though. Maybe instead of posting full solutions right away, post more detailed steps of the setup, but not the conclusions (probably too difficult to make two solutions for every homework and may be underutilized).

Comments
The lecture portion feedback will seem mostly about teaching style, but I'm sure you could pick out some details obtainable without compromise. In a general sense, I think that if you are teaching the class with emphasis on problem solving skills, a more thorough breakdown and elaborate explanation of the problem solving steps is very much warranted. If you would like students to think less of the process and more on utilizing the fundamentals you should avoid a simplifying the explanation of the process. You certainly did this for some lectures, but like stated in the positive feedback it seemed dependent on attitude. Yeah, at some point for people it does become a process, but personally I like to stop at each step or part of a question, do a more complete analysis of the problem, look at what we need to next conceptually, what we can do practically, and what next step that yields. There were lectures that you did this, and I understand that you can't do it every time, for fear of losing time and aneurysms. Essentially, I don't feel very bright, and mastery of a skill feels unobtainable unless you teach me like a child. There was a point in the semester which if you feel behind just a little bit, you felt very incapable of learning. Not saying you didn't teach enough, but it mostly applies the in–class examples, the ones we actually did in class. If one was done with the patience of a saint, thoroughly thorough, scaling the difficulty would come more easily. Maybe, I'm not sure. I would say, take more care in scaling the building blocks. You do well in teaching us the fundamentals. But perhaps there was a small assumption we'd assume how to use them correctly. This honestly wasn't that big of a problem, I am just thinking through my own learning, so take this with a grain of salt. I see that I have offered less tangible feedback as have gone on, so I apologize. Sometimes, you answered people's question and your own question's with a concise path of thinking, and sometimes you answered it with more or less the answer. I'm sure this is mostly me, but I'd like to see more of the prior responses. I don't think it is because you lose patience or anything, I could just be losing focus. This feedback is more extensive than intensive; I say little with lot. Clearly
The tophat videos were very weak, some were less than a minute and provided 0 contexts to the concepts only giving random equations, after the corresponding class, the concepts were clear but the videos could have been a lot better. Also many of the latter homework were only given the answer key so it was difficult to try it on our own.
IDK
nothing
I would have liked to see a project in the class
Updating the github would be helpful, only the first half of the semesters materials were avaliable
Make the midterm in person
Nothing.
Skip fewer intermediate steps on homework solutions
explain what the exam format is going to be like.
Find better Tas.
The instructor could be more enthusiastic.
Honestly nothing Professor Barry is the best
more worked examples with solutions posted to canvas

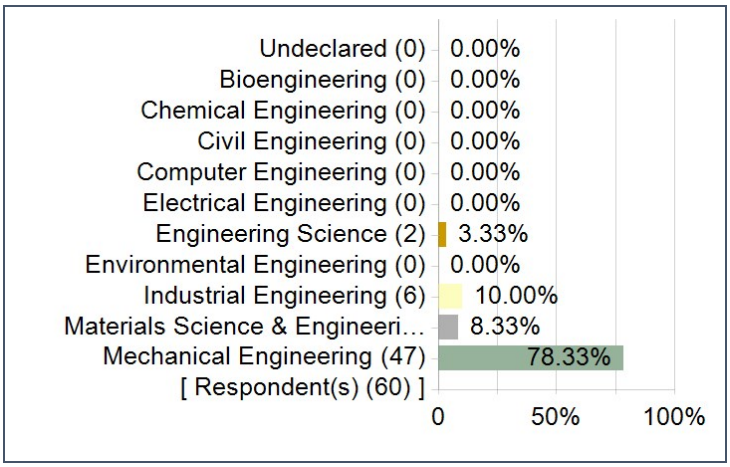
Do you have any other information that you would like your instructor to know?

Comments
No
Thank you for a great semester!
I would like him to know that his dog is so swag and cash money! I really do be likin dogs.
Pls get a competent textbook that has problems we can work on at home.
None
n/a
A lot
Flipped lectures were great, I l loved them. I never looked at the tophat after the first week. Homework solutions being provided was very helpful. Quizzes were a good level of difficulty, and the take home exams were similarly doable. You are mean and I think it's hilarious.
No
none
No

Comments
No, thank you
I appreciate all the help I received this semester.
Thank you, Dr. Barry. Thank for your patience and I like your humor though most of time I cannot get.
Nope
flipped format is great. Online concepts accompanied by in class examples makes learning the material a lot easier. Homework solutions are great, although it should be a completion grade since solutions are provided.
no
No
N/A
no.
I really liked the flipped classroom format for circuits, I thought it worked really well for circuits, especially since so much of the material is repeated throughout the class. I thought the homework workload was appropriate. I liked how the TopHat section was optional, but wish it had some more content towards the end of the semester.
I am neutral about the flipped class, I think I learned the same amount when we did flipped class and switched to normal lectures at the end of the year. I liked having answers with the homework because it helped get started when I was stuck. I thought the weekly quizzes in class were fair and better than take home. I thought that the top hat worksheets and questions really helped prepare me for these questions.
–
nothing other than what has been said.
Nothing you couldn't infer from above. I found this class challenging, and it felt no matter if ignored it or focused a lot of energy on it I didn't progress differently. This builds a little resentment – an unavoidable amount – which creates some friction. This is more of a reflection of my own learning I suppose. Just maybe context for the feedback, if you care to weigh my bias. Overall, I cannot rationally disapprove of the class this semester or your teaching abilities. Sorry for the large amount of feedback; I gave a whole lot because it does very much feel that you care to adapt your class format and the way you teach, and I respect that. You have high expectations for us, and disapprove avoiding challenges. On paper, this is ideal, in practice it is complicated. It may motivate us to become better, but at the cost of our optimism. This creates a rational–emotional conflict, and dubs you controversial to approve of. I think this will make it so your teaching will improve before people admit it. That being said, it is visible that you care to improve, and that you make a good effort. I did this omet before you posted what specific feedback questions: the flipped format probably could work better than a typical format, readdress the way you teach the problem solving skills (slight changes).
N/A
Nah
no
Overall really great format. Even if people say they don’t like the flipped format so you decide to go to in class lecture, why not keep the recordings and tophat up anyways for people that prefer it? ….oh and VJ’s research is valid
I liked having a formulaic teaching method for learning circuits. It made them less confusing for me.
none
I really enjoy taking your classes and look forward to seeing you again in the fall. Your are the most enjoyable, funny, enthusiastic, and just overall fun professor I've had. Dont change

Swanson School of Engineering Questions

Please select the major you are enrolled in. Check at most 2 programs. If you are currently a freshman or an undeclared major, select your anticipated major from the list (or select Undeclared if you are unsure).



The instructor was accessible.

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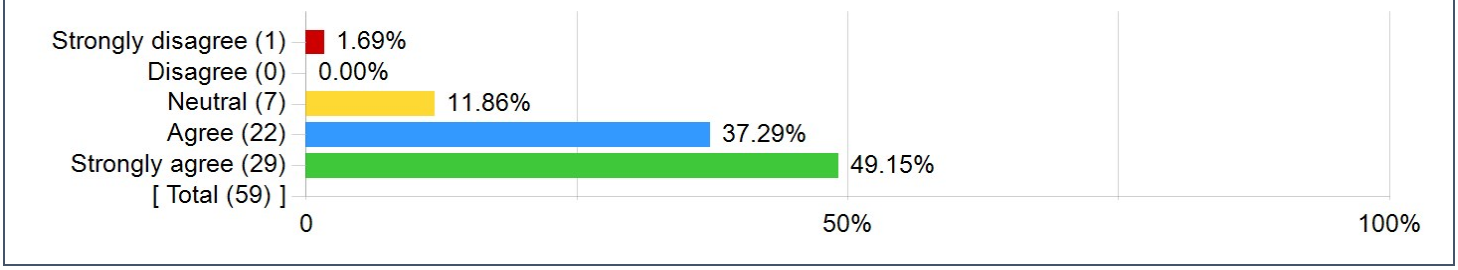


Please provide advice to future students: What could you have done to improve your learning in this course?

Comments
Just go to class and pay attention
Attending class
Could have went to more office hours, just be prepared to learn, if you are willing to go the extra mile read the textbook beforehand. But it's fine to simply do the homework, watch and take notes on the videos, and come to class and pay attention.
Watch the lecture videos.
Go to office hours for both Dr. Barry and the tas
More practice problems.
Go to the TAs more. They def were helpful when I actually went to them
In order to improve my learning in this course, I could have done more of the textbook examples, other than just relying on the homework problems as study resources.
keep up with course material
master what you learn in the first 3 weeks because if you don't everything else is a major pain
A lot
Do the tophat
STUDY!
I think I did well in this class.
Practice Practice and Practice homework and example. Go to office hours for help if needs or ask question during class.

Comments
Go to office hours and watch the example videos.
I would be appreciated if TA could write down the reason for deducting points.
Go to office hours
N/A
do tophat beforehand
Ask questions
Watch the lecture videos
Do more extra questions in the textbook
Following the tophat video examples closer rather than just watching them
Don't burn out before you're allowed to. You will fall behind, unrecoverably. That is general advice, not just for this course.
Make sure you do the TopHat material, it is a good check to make sure you actually understood the lecture material.
do the homework
Make sure to know how to set up a system of equations.
–
Do every homework and to completion
Make sure to study weakly in order to do well on the quizzes.
Don't use a crutch. If you fall a little behind you will stay there for a while.
Done the homework without the assistance of answer key to make sure the concepts were learned
Go to office hours. Attempt homework without looking at the solution first. Keep attempting homework until you can complete it quickly. Look at github.
Understand the beginning content very well and the end stuff wont be too bad
Keep up to date on assailments
use the course resources
Go to office hours
Actually pay attention in class and do the homeworks
Go to office hours
Watch more example videos
Spend more time outside of class working on example problems or homework
studied more.
Print out classwork papers before class.
Pay attention and go to class. Find friends in the class to be able to work with.
Go to class and watch the videos. Also participate in class

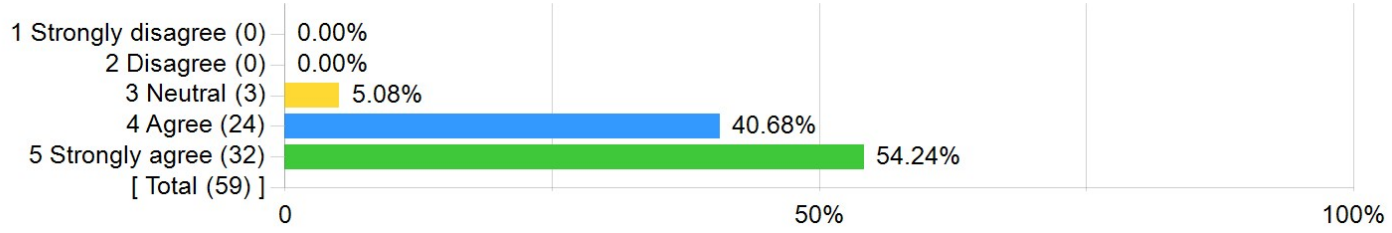
Engineering Undergrad Courses

Please rate the degree to which this course has improved...

Question	Results		
	Response Count	Mean	Standard Deviation
Your ability to identify, formulate, and solve complex engineering problems by applying principles of engineering.	59	4.24	0.70
Your ability to identify, formulate, and solve complex engineering problems by applying principles of science.	59	4.19	0.80
Your ability to identify, formulate, and solve complex engineering problems by applying principles of mathematics.	59	4.32	0.71
Your ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare.	59	3.39	1.22
Your ability to apply engineering design to produce solutions that meet specified needs with consideration of global, cultural, and social factors (i.e., sustainability principles).	59	3.27	1.31
Your ability to apply engineering design to produce solutions that meet specified needs with consideration of environmental and economic factors (i.e., sustainability principles).	58	3.22	1.31
Your ability to effectively communicate verbally with a wide range of audiences.	58	3.28	1.31
Your ability to effectively communicate in writing to a wide range of audiences.	59	3.19	1.31
Your ability to recognize ethical and professional responsibilities in engineering situations.	59	3.17	1.38
Your ability to make informed judgments that consider the impact of engineering solutions in global and societal contexts (i.e., sustainability principles).	59	3.10	1.34
Your ability to make informed judgments that consider the impact of engineering solutions in economic and environmental contexts (i.e., sustainability principles).	59	3.17	1.35
Your ability to function effectively on a team whose members together provide an inclusive environment, collaboration, and leadership.	59	3.24	1.33
Your ability to function effectively on a team whose members together establish goals, plan tasks, and meet objectives.	59	3.24	1.37
Your ability to develop appropriate experiments.	59	3.20	1.40
Your ability to conduct appropriate experiments.	59	3.22	1.44
Your ability to analyze and interpret data and use engineering judgment to draw conclusions.	58	3.62	1.21
Your ability to embrace new learning strategies to independently acquire and apply new knowledge to solve engineering problems.	58	4.17	0.82

Diversity and Inclusion

The instructor creates an inclusive learning environment for all students.



Statistics	Value
Invited Count	70
Response Count	59
Response Ratio	84.29%
Mean	4.49
Median	5.00
Mode	5
Standard Deviation	0.60