University of Pittsburgh

Fall 2018 - Matthew Barry MEMS 0071 - INTRO TO FLUID MECHANICS - 1020 - Lecture

Project Title: **2191 - Teaching Survey Fall 2018**

Courses Audience: **77**
Responses Received: **67**
Response Rate: **87.01%**

Subject Details	
Name	MEMS 0071 - INTRO TO FLUID MECHANICS - 1020 - Lecture
DEPARTMENT_CD	MEMS
CAMPUS_CD	PIT
SCHOOL_CD	ENGR
CLASS_NBR	22753
SECTION_NUMBER	1020
TERM_NUMBER	2191
COURSE_TYPE	Lecture
CLASS_ATTRIBUTE	
First Name	Matthew
Last Name	Barry
RANK_DESCR	Assistant Professor
TENURE	NT

Report Comments

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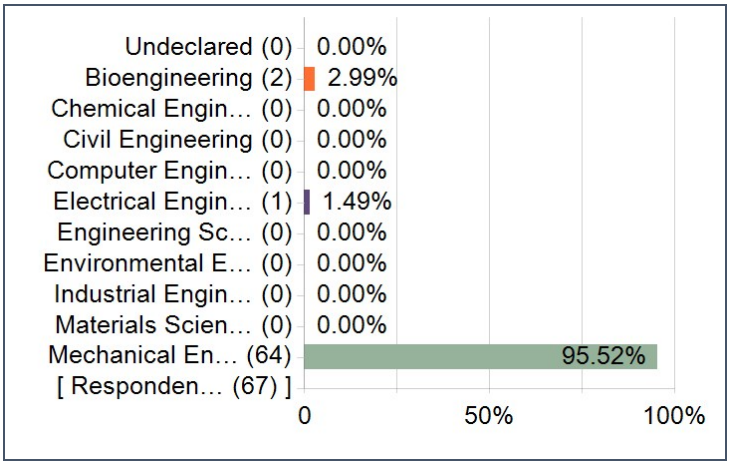
Instructor and Course Survey Results:

- Numerical
- Comments
- Additional School or Department Questions (if applicable)
- Additional QP Questions (if applicable)

Creation Date: **Saturday, February 23, 2019**

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).



University Questions

Instructor Summary of Results - Scale: Strongly Disagree (1) to Strongly Agree (5)

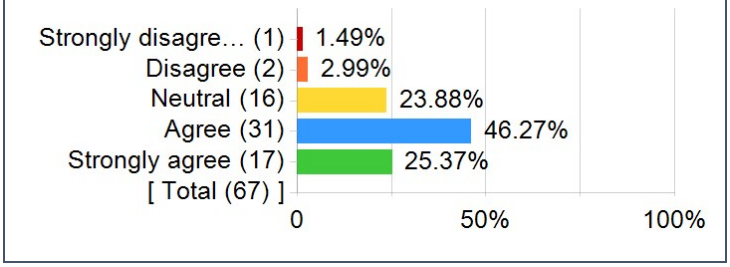
Question	Results		
	Response Count	Mean	Standard Deviation
The instructor stimulated my thinking.	67	3.91	0.87
The instructor was enthusiastic about teaching the course.	67	3.72	1.18
The instructor presented the course in an organized manner.	66	3.98	1.03
The instructor maintained an environment where students felt comfortable participating.	67	3.61	1.03
The instructor maintained an environment where students felt comfortable seeking assistance.	67	3.60	1.12
The instructor provided helpful feedback.	67	3.63	1.04
Assignments contributed to my understanding of the subject.	67	3.73	1.07

Instructor's overall teaching effectiveness

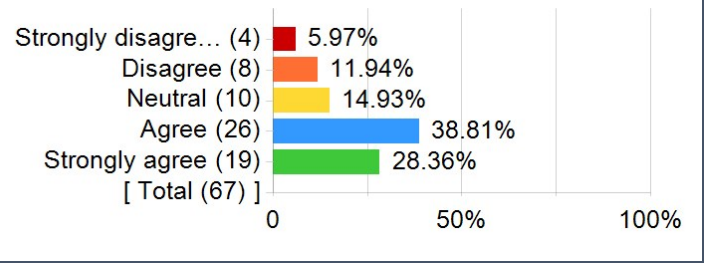
Question	Results		
	Response Count	Mean	Standard Deviation
Express your judgment of the instructor's overall teaching effectiveness.	67	3.49	1.13

Instructor Items: Detailed Results

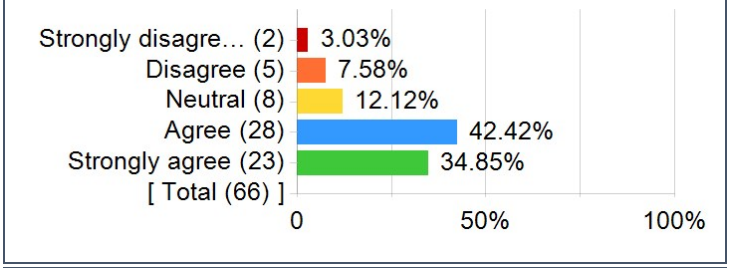
1. The instructor stimulated my thinking.



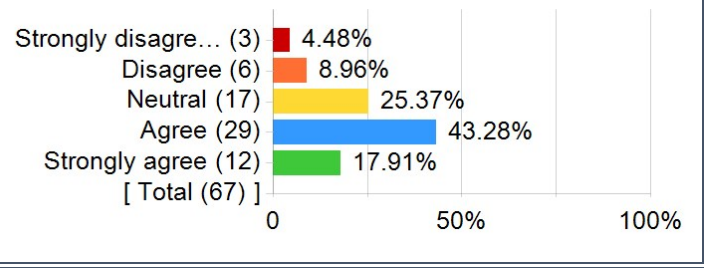
2. The instructor was enthusiastic about teaching the course.



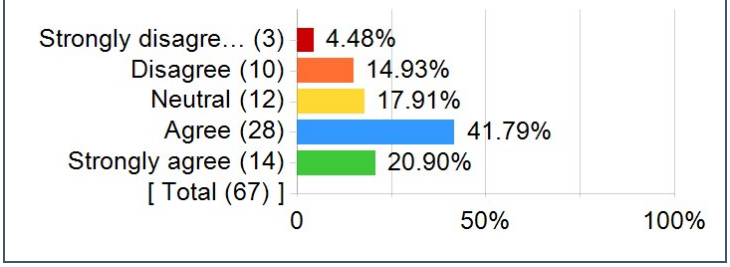
3. The instructor presented the course in an organized manner.



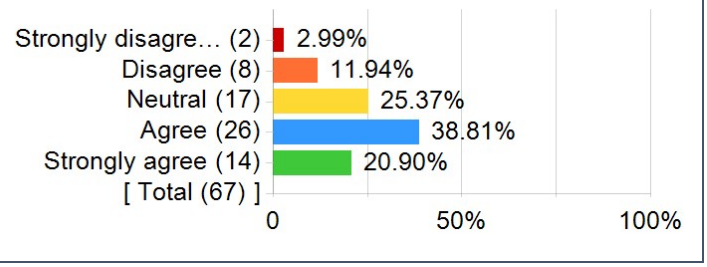
4. The instructor maintained an environment where students felt comfortable participating.



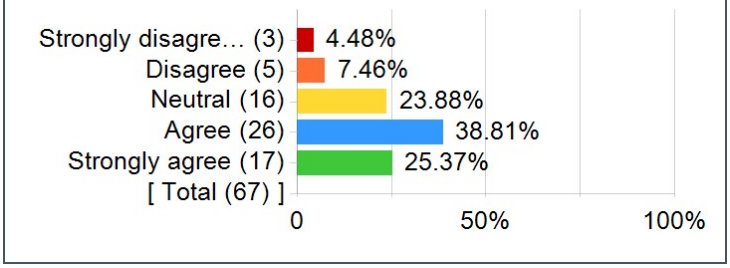
5. The instructor maintained an environment where students felt comfortable seeking assistance.



6. The instructor provided helpful feedback.

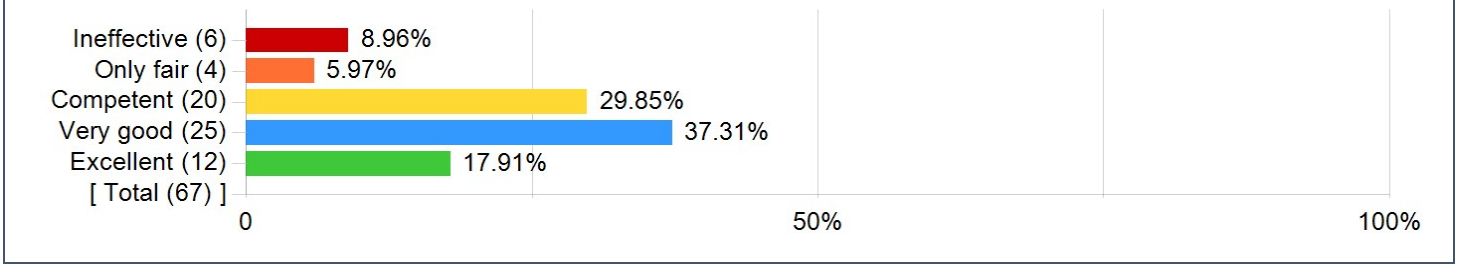


7. Assignments contributed to my understanding of the subject.



Instructor's overall teaching effectiveness:

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



Comments

What did the instructor do to help you learn?

Comments
Nothing.
Tophat with available annotated notes is very helpful. As well as homework and exam solutions.
Provided rudimentary examples in class, went through derivations of equations in an effort to make students fully understand the equations and their uses. Stressed that equations are tools, and are not to be used without thought behind them. Provided books to students for free. Provided slides. Used TopHat, so students could refer to old lectures. Made self deprecating jokes in class that made students aware of their hatred for themselves.
Barry, when he wants to care, is pretty good at providing one on one help. However recently this semester he is distant and rude when asked for help in office hours
spending lots of time after class helping me understand the course.
Helped me learn how to think critically about certain problems
Clear instruction in class
Really good at explaining fluids.
He provided us with lectures and some homework.
He did a good job of keeping step by step processes
One step closer to being an engineer and not someone who can plug variables into equations and get numbers
Professor Barry is a very good lecturer, & teaches concepts in a simplified manner such that students are able to pick up on them easily. I found that his full understanding of mathematics contributed to my learning as well.
Presents material in an organized manner. Homework solutions were helpful in understanding topics.
Did a great job explaining the derivation of the equations we used in the class.
The homework was very beneficial to my success. I feel like TopHat helped a little at the beginning of the semester with the in class quiz participation. It forced me to think about what we just talked about.
Using tophat was helpful
posted slides with annotations on tophat so we could review them after class, available at office hours
He did a really good job on explaining how we can get all the equation we need to learn.
Helped me understand the concepts of CDF.
Giving powerpoints
the example problem
no
A lot of in class examples
Notes were posted online which made them accessible outside of class and were helpful
.
That navier stokes is the most beautiful equation in the world
clear slides
Talk more about example questions and basic concepts.
Made us think in a number of different ways to better understand the subject
Provided real–world examples relative to course material. Used Tophat to keep students involved in lectures.
The instructor provided a detailed course outline and text to help us learn the material ahead of time along with detailed powerpoint's and examples.
The use of TopHat was very helpful.
He has good knowledge of his topics and knows how to solve his own problems. I enjoy that he writes the notes with us to ensure he doesn't go too fast and uses Top Hat for when he does.
Clear and understandable slides.
Lecture slides were very good and useful
Provided lecture slides online by using top hat. I liked how the class was formatted. He somewhat used real world scenarios to help us visualize concepts.

Comments
Repeatedly stressed fundamental concepts to the point that you felt nauseous hearing them again. Made himself widely accessible outside of class. Maintained a fun atmosphere in which students were comfortable participating. Taught using well–organized and carefully constructed lectures. Stimulated critical thinking by having us challenge underlying assumptions behind equations and forcing us to truly understand the proper context in which certain ones should be used.
N/A
Taught us the theory and how to apply it
Using Tophat helped me stay organized
The use if tophat was very good, being able to reference the instructor's comments on the slides was very useful
He is available after class and when I have questions he is always very patient to help me figure it out.
Lectures that gave a clear understanding of the math involved
not much
RTT and Navier Stokes.
Presented lectures in an entertaining way. Was willing to help during office hours.
Very detailed in NS lessons
real world applications
Provided in–class examples that mirrored those that appeared on the exams. We were well–prepared for them.

What could the instructor do to improve?

Comments
Homework that helps understanding the materials. Post announcement when HW are changed after it was given out.
More timely production of solutions and assignments.
Go through examples that highlight some of the methods needed to solve more difficult problems. Spend less time doing derivations, 10 years from now, no one remembers those. Treat students with more respect, and maybe they will put forth more effort. Provide slides sooner than 10 minutes before class. Fluids is a hard class for many people, not everyone is capable of completely understanding concepts through the math alone. Doing more examples and showing students how to use the equations in odd situations will result in a better quality education, and result in less boilers that blow up.
Show animations or demonstrations on subjects.
Where to begin.. Compared to his other courses I've taken with Dr. Barry, I do not believe that he cared much about our success in Fluids. He stopped making homework assignments in late October and we are going into the final without any sort of practice whatsoever.
May be less strange question in the final
really taking time to explain important concepts rather than assuming everyone understands
Make the class easier
Do more examples.
Don't use TopHat ever! Provide a weekly homework. Do quizzes on paper. Don't spend so much time doing a derivation. Do more examples in lecture. Provide pictures for an exam problem.
Be a better teacher. He was disorganized and extremely condescending. He posted notes very last minute and the notes were basically garbage. He spent 90% of the class going through a derivation I could do on my own and then spend the last 5 minutes doing any easy cookie cutter example.
Provide more homework assignments. I found that having only 2–3 homework assignments to prepare for a test was too little for the class to solidify principles through exemplification.
Make the homework more like the exams or vice versa. A lot of the exam questions felt like they came out of left field.
I wish the class had more homework assignments.
I feel like once TopHat is mastered by Dr. Barry he can really make the lectures more engaging ang thought provoking. It is very difficult to read the book and understand some of the math but if we can use example and pictures of the real world that may help.
Maybe you could release previous years tests to give us something to practice that we can time ourselves with, I ran out of time on the second test and didn't answer the last two questions
organize class time better, spend more time explaining the process than deriving formulas, have more classes, provide WAY more practice problems and homework problems to study from for the exam, provide solution sets to the homework after the homework is collected, return homework before the exam on it is due, construct homework and exam questions to be clearer on what the

Comments
question is asking for, spend a minute to review what happened in the previous class and how that relates to what we are doing today
It was really confusing for me to learn how these equations change from one to another. It was so easy to get lost during the process. At first I tried to focus on class, but it just turn to nothing then i just give up... Also, the exam questions were confusing which was really sad since I felt like i should know the answer but i just cannot understand the problem.
Add more home work and more examples to test understanding of the concepts.
Handwriting.
More examples should be provided for the difficult part
Have more homework assignments and example problems. He could also better explain why he is doing certain topics or what relevancy they have.
no
Make it more clear which topics will be covered on tests
Hold some review sessions and give some practice problems
.
Nothing. He was great. enjoyed the class and his lectures
more example
Don't spend too much time on the derivaiton of formula. Instead, some basic concepts and definitions should be explained. I stronly recommend that he can talk about the basic definition and example questions in the lecture.
Perhaps provide more examples that could be helpful in preparing for exams
Take it easy on those trick questions, i.e. provide theoretical values (force, velocity, etc.) that can be applied to solving problems.
More in class questions that are not for a grade, but to keep the students engaged.
Put notes up sooner
He could be less snippy and sarcastic. He enjoys trying to trick his students and sometimes makes degrading comments when a student asks a "dumb question"
Some homework problems are obscure, which makes my friends and I confused.
–Homework questions were very hard and we did not have much practice with those questions before the homework was due. –Quizzes on tophat were not ideal because no partial credit was given –Practice exams would be very useful before the exam –More practice problems for the exam
Be more enthusiastic about teaching. Whenever the professor teaches lecture, he sort of makes the audience feel that we should already know what he's talking about, and if we did then we obviously wouldn't be taking the class. Yes, he is a smart man, but he can't treat students the way he does, otherwise we will never learn the information. He spends alot of time on mathematics and not enough on concepts. Whenever he gives real world situations it seems like he just goes off on a tangent and says something short and doesn't fully explain it and after you just sit there and think what he's even talking about.
Cut to the chase more quickly with derivations – these are helpful for understanding the underlying assumptions behind and meanings of the equations, but cause eyes to glaze over. Proofs of this level of details don't seem entirely appropriate for an introductory, undergraduate–level course.
Teach the class he is scheduled to teach. Class cancelled or the TA taught too many times for some of the most important content... The disorganization of the class drove me crazy. His slide annotations were never legible, and the quizzes only worked half the time... TopHat is notoriously the worst teaching app. I would suggest having the students get clickers for in class participation and quizzes and finding a different way to project lecture annotations. Another big issue I had would be your lack of enthusiasm while teaching, your tone was always flippant and unimpressed by what you were saying. Also, I have always felt that college has been to prepare you for the real world; however, this class was not taught in that way. For instance, not getting an equation sheet on an exam where we were tested on more material because we were behind for the first test and needing to spend time memorizing equations instead of learning concepts is a complete waste. Telling us memorizing them should be "easy" just because you have them memorized (even though teaching these concepts is your job) is absurd. Never in real life will you be in a circumstance where you need Navier Stokes and cannot look it up quickly. Lastly, homeworks were inconsistent and that is the best way to learn material...I think grading the entire homework would also be better.
Stop using tophat or improve handwriting
Post the slides sooner
More emphasis or summary on the key points of the derivations. It is difficult to know what to focus on when studying the slides.
Notes near the end were very incomplete. Basically stopped giving homework near the end which made it a lot harder to prepare for

Comments
exams or get a good enough grasp on the material.
Have more than just 5 homework assignments
Have a better handwriting or type the process of getting the equations on ppt. It is really hard to distinguish what is it after class.
I could not understand the concepts of the fluid mechanics after taking his class
Grade the second exam easier.
Do more practice problems (that are similar to homework) in class.
consistent HW/Quizzes for student practice
more logical progression of ideas and concepts
Be more polite to students

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

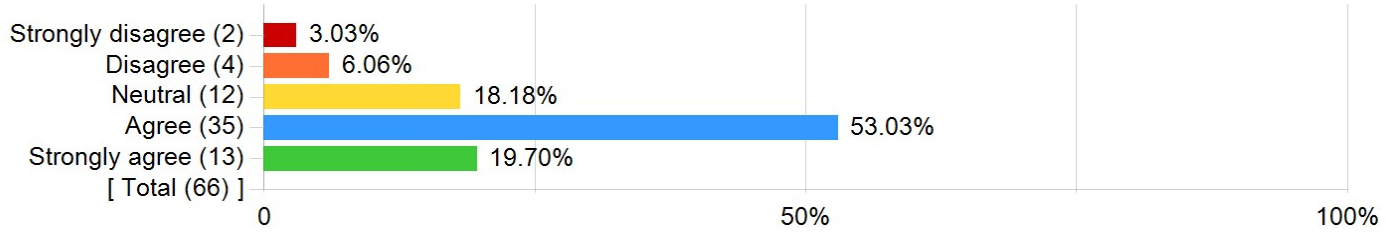
Comments
Deriving equations are useless if there isn't good examples to show what the equations are doing.
Concept study guides for exams could be of help.
Instructor did little to help students learn, thus forcing students to learn the material on their own, making the quality of learning quite terrible. Made students question why they were paying for the course. Love ya barry
thank you for your patient
It is what it is
No
WE NEED A FORMULA SHEET FOR EXAMS!!!
He should assign more homework so people can practice the skills he "teaches"
Bring back your dogs pls
Compensating for a high average on exam 1 was inappropriate especially when we are competing with students who have a different professor who would not compensate.
I think RTT is a beautiful equation!
I believe the exams were pretty fair. I did well on the first one and not so well on the second. I believe its because I spent some time reviewing buoyancy. I definitely would do better after seeing where I went wrong on Midterm 2. I also felt bad I didn't get the "gimme" points on Midterm 2.
none
You are a really interesting teacher but I am just too stupid... Sorry
No
It would be good if Dr. Barry could left assgnments after the second exam.
The equations ARE hard to memory
There were also not many quizzes over the semester so it was difficult to see what problems would be like on exams. Basically this is a hard class so I think he needs to give the students more practice. It is also difficult to know what is important in the slides and what isn't.
no
no
.
n/a
Students' calculus and deferential foundations are not as good as he thought. Sometimes it is quite hard for us to understand his derivaiton.
Yes.
Keep bringing humor to class.
Bruh don't make us try to put Navier–Stokes into TopHat again.
The process of derivating formulas is tough.
No.
nuff sed
Nope
No
In fact, helping us knowing how to get the final equations on class is not interesting, perhaps you can sent it to us before the class and have a quiz about whether we have understand the concept, and give us some case study to deeply understand how to use those equations would be better.
No
You're funny.
Enjoyed the course but could see when prof started to get a little lazy. Overall good

ENGINEERING

Swanson School of Engineering Items

The instructor was accessible.

1. The instructor was accessible.



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

Comments
Take the class with literally anyone else.
Go to office hours, and make sure you understand the general concepts behind the homework problems.
Don't take it. If you do, know RTT and try not to piss Barry off.
Go take Cho
look at text book more
Go to office hours
Prepare before class
Not really sure what I could change. This class had its ups and downs tbh.
Go to every office hour–although often times he is not there when he says he will be
Do lots of practice problems, as many as you can handle
Read before class. It is easy to learn concepts in–class, but the times I read chapters before class I was able to pay more attention to lecture & less time taking notes.
You must understand the homework and do book problems in order to be prepared for the exams.
Memorize RTT and NS. Equation sheets will not help you. You need to have a complete understanding each part of the each equation.
Do the book problems. Dr. Barry takes a lot of the HW from the questions at the end of the chapter and then some on exams also.
Get help with homework, if you understand how to do it you will be well off
try to read the textbook more often and ask for extra practice problems because there's hardly any homework given to practice from and the textbook problems don't seem to relate to what we're doing very much
I WAS ALSO WONDERING!
Pay attention
Attend the class and you will be fine.
learn differencial equation well
no
Focus on concepts rather than equations
even though the notes are online, still go to class. Hearing the professor go through the problems will definitely help
.
Study. The exams are hard
1. Do well in deferential and calculs. 2. Preview and review the textbook and lectures slides!
Read the book more

Comments
Use Fox and White textbooks for practice and studying.
More time going over examples in the book before exams.
If Barry says to know something, you better know it
Know your math
RTT is very important!
Understand the topics
Do the book problems. All of them.
Read/do practice from the book
Fully understand the lecture example problems, and the homework problems
I would do the book problems from the supplemental sources
Read or skim the textbook sections before the class in question
If you like history, you could do better than others at the same base.
Just go to class and do book problems every once in a while
Do well in calculus
Memorize what assumptions we make when deriving the Bernoulli equation.
Make sure you review the material and understand it. The RTT problems boil down to very simple equations, so don't over think stuff.
Consistent HW
more examples, less time spent on messy derivations an more on application
Read the textbook

ENGINEERING UNDERGRAD

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.	65	3.89	0.83
Your ability to identify, formulate, and solve complex engineering problems by applying principles of science.	65	3.89	0.85
Your ability to identify, formulate, and solve complex engineering problems by applying principles of mathematics.	65	4.00	0.87
Your ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare.	64	3.19	1.19
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).	65	2.92	1.28
Your ability to apply engineering design to produce solutions that meet specified needs with consideration of environmental and economic factors (i.e., sustainability principles).	65	2.95	1.23
Your ability to effectively communicate verbally with a wide range of audiences.	65	2.60	1.40
Your ability to effectively communicate in writing to a wide range of audiences.	65	2.60	1.34
Your ability to recognize ethical and professional responsibilities in engineering situations.	65	3.09	1.27
Your ability to make informed judgments that consider the impact of engineering solutions in global and societal contexts (i.e., sustainability principles).	64	3.06	1.28
Your ability to make informed judgments that consider the impact of engineering solutions in economic and environmental contexts (i.e., sustainability principles).	65	3.05	1.23
Your ability to function effectively on a team whose members together provide an inclusive environment, collaboration, and leadership.	65	2.77	1.39
Your ability to function effectively on a team whose members together establish goals, plan tasks, and meet objectives.	65	2.80	1.41
Your ability to develop appropriate experiments.	65	2.74	1.33
Your ability to conduct appropriate experiments.	65	2.71	1.41
Your ability to analyze and interpret data and use engineering judgment to draw conclusions.	64	3.53	1.14
Your ability to embrace new learning strategies to independently acquire and apply new knowledge to solve engineering problems.	65	3.62	1.07