# Spring 2021 - Matthew Barry MEMS 0051 - INTRODUCTION TO THERMODYNAMICS - 1060 - Lecture

Project Title: **2214 - Teaching Survey Spring 2021**

Courses Audience: **44**
Responses Received: **36**
Response Rate: **81.82%**

**Report Comments**

## Included in this report:

- Responses to numerical questions
- Responses to instructor added questions (if applicable)
- Student comments

## Interpreting OMET Teaching Survey Reports

A guide to interpreting OMET teaching survey results can be found here - https://teaching.pitt.edu/omet/survey-results/.

## Develop a plan using your student opinion of teaching results.

- Meet with a Teaching Consultant who can help you interpret your results and develop a course of action if necessary. Email teaching@pitt.edu to set up a consultation.
- Plan on collecting student feedback during the semester the next time you teach. OMET offers a midterm course survey option and there are additional ways to collect student feedback throughout the term. For more information, go to https://teaching.pitt.edu/omet/midterm/
- In the future, discuss, teach, and model giving meaningful feedback with your students. Give them multiple opportunities to practice giving feedback. We have several resources that can help guide the discussion and options for gathering student feedback throughout the term.

Go to: https://teaching.pitt.edu/omet/ for more details, references, and resources.

Creation Date: **Thursday, May 20, 2021**

## University Questions

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

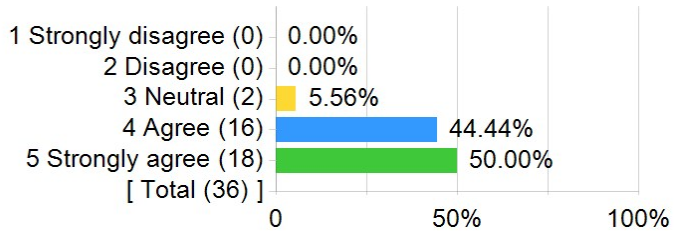
| Question | Results | | |
|---|---|---|---|
| | Response Count | Mean | Standard Deviation |
| The instructor stimulated my thinking. | 36 | 4.44 | 0.61 |
| The instructor was enthusiastic about teaching the course. | 36 | 4.47 | 0.70 |
| The instructor presented the course in an organized manner. | 36 | 4.61 | 0.55 |
| The instructor maintained an environment where students felt comfortable participating. | 36 | 4.50 | 0.74 |
| The instructor maintained an environment where students felt comfortable seeking assistance. | 36 | 4.50 | 0.70 |
| The instructor provided helpful feedback. | 36 | 4.39 | 0.77 |
| Assignments contributed to my understanding of the subject. | 36 | 4.42 | 0.87 |
| Overall | - | 4.48 | 0.71 |

### Instructor's overall teaching effectiveness

| Question | Results | | |
|---|---|---|---|
| | Response Count | Mean | Standard Deviation |
| Express your judgment of the instructor's overall teaching effectiveness. | 36 | 4.25 | 0.84 |

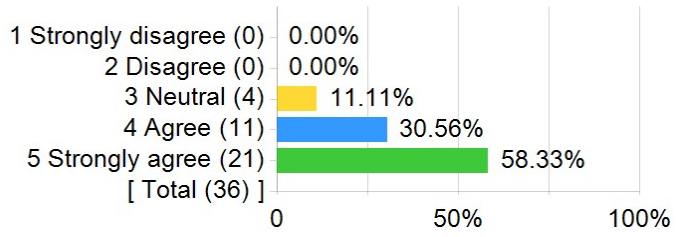
### Instructor Items: Detailed Results

1. The instructor stimulated my thinking.



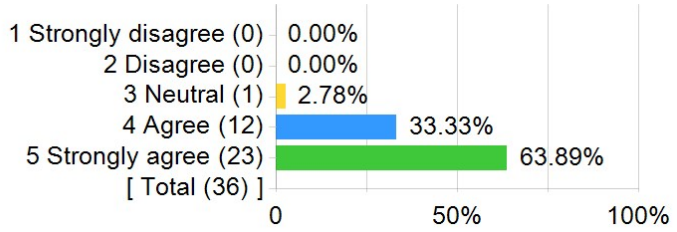

| Statistics | Value |
|---|---|
| Invited Count | 44 |
| Response Count | 36 |
| Response Ratio | 81.82% |
| Mean | 4.44 |
| Median | 4.50 |
| Mode | 5 |
| Standard Deviation | 0.61 |

2. The instructor was enthusiastic about teaching the course.



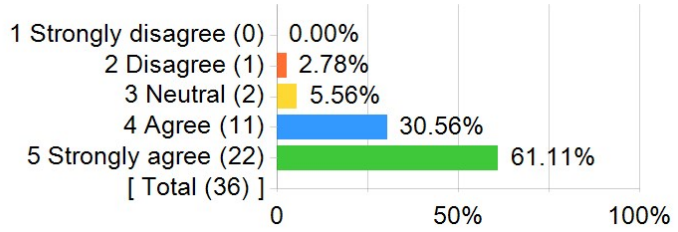

| Statistics | Value |
|---|---|
| Invited Count | 44 |
| Response Count | 36 |
| Response Ratio | 81.82% |
| Mean | 4.47 |
| Median | 5.00 |
| Mode | 5 |
| Standard Deviation | 0.70 |

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



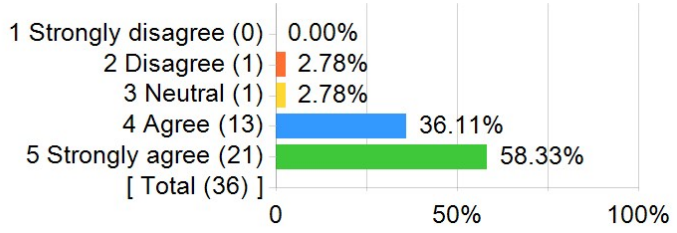

| Statistics | Value |
|---|---|
| Invited Count | 44 |
| Response Count | 36 |
| Response Ratio | 81.82% |
| Mean | 4.61 |
| Median | 5.00 |
| Mode | 5 |
| Standard Deviation | 0.55 |

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



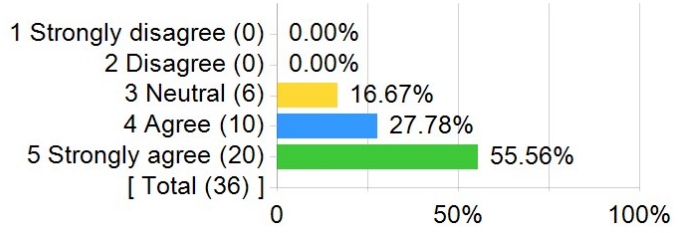

| Statistics | Value |
|---|---|
| Invited Count | 44 |
| Response Count | 36 |
| Response Ratio | 81.82% |
| Mean | 4.50 |
| Median | 5.00 |
| Mode | 5 |
| Standard Deviation | 0.74 |

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



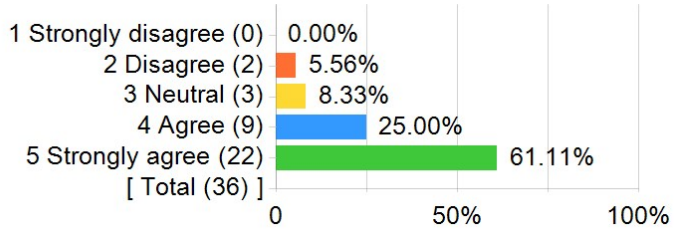

| Statistics | Value |
|---|---|
| Invited Count | 44 |
| Response Count | 36 |
| Response Ratio | 81.82% |
| Mean | 4.50 |
| Median | 5.00 |
| Mode | 5 |
| Standard Deviation | 0.70 |

### 6. The instructor provided helpful feedback.




| Statistics | Value |
|---|---|
| Invited Count | 44 |
| Response Count | 36 |
| Response Ratio | 81.82% |
| Mean | 4.39 |
| Median | 5.00 |
| Mode | 5 |
| Standard Deviation | 0.77 |

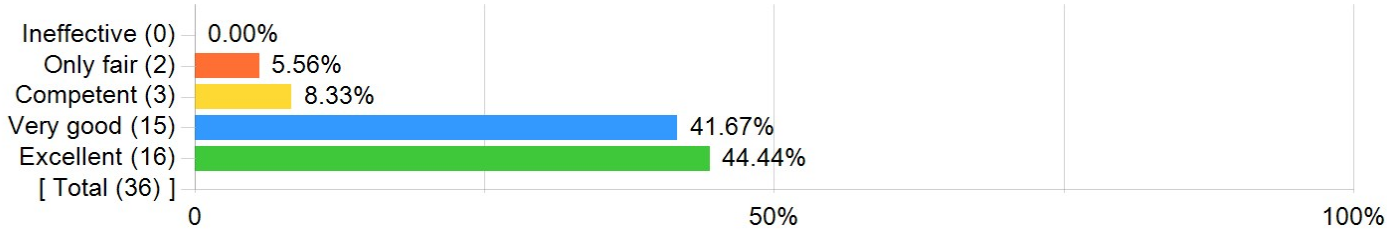
7. Assignments contributed to my understanding of the subject.




| Statistics | Value |
|---|---|
| Invited Count | 44 |
| Response Count | 36 |
| Response Ratio | 81.82% |
| Mean | 4.42 |
| Median | 5.00 |
| Mode | 5 |
| Standard Deviation | 0.87 |

## Instructor's overall teaching effectiveness:

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



## Comments

### What did the instructor do to help you learn?

| Comments |
| --- |
| Worked examples in class, prepared questions for self–study through TopHat, in–depth feedback on assignments that genuinely helped me learn from my mistakes |
| very available for office hours, asking questions after class, giving real world examples, clear and concise examples and lectures make it easy to pay attention |
| The flipped aspect of the class helped as in–person lectures were very helpful in building off of the concepts covered in the videos. |
| Provided multiple resources to use to learn |
| Lots of example problems. introduced me to EES |
| He helped learn the basics of thermodynamics. |
| He used amazing comparisons to the material with real life situations. He explains all of his examples and answers all questions that people have in class. |
| Recorded videos for lessons, put everything in an organized manner on canvas, went over problems and stuff for lessons live so we could ask questions. |
| Pre–recorded lectures allowed me to digest material at my own pace. |
| Having discussions about theory and practical applications during class really helped me to see the bigger picture. Doing practice problems obviously helps, but sometimes when you just look at numbers and equations its easy to forget why youre actually solving the problem in the first place. |
| His lecture questions are very good at helping to keep my attention. |
| Dr. Barry's approach to the content solidified my understanding of the basics before assigning fairly difficult questions on quizzes and exams. I felt that this approach was very successful at making me a better engineer. |
| Very helpful in office hours, presents the course in a very straightforward and organized manner. |
| Dr. Barry was very willing to answer questions, and there were a lot of office hours to get help at. It is very easy to look back and review the recorded material. |
| Provided excellent resources, practice problems, and in class examples in a highly organized manner. Allows time for questions and encourages learning |
| Provided lots of resources and past assignments with answers |
| Provided us with endless amounts of resources including all the work for previous years and much more. |
| Provided a diverse method of teaching the lectures, base info in videos, in depth instructions on course work in lectures |
| Many different online resources to learn the material.<br>In depth examples to demonstrate the topic of the day's lecture.<br>Answers sheets that go through solving homework/quiz problems. |
| Provided pre class lecture videos to watch to help you become more familiar with the material before class. I felt this helped establish a better understanding of the material because you were able to see it more times. |
| gave a good foundation for future thermodynamics classes |
| Lots of example problems |
| Videos, quizes, solutions to examples |
| Was very approachable for questions, and was able to give a lot of real world insight on concepts talked about in the course. |
| Always able to answer questions. |
| Dr. Barry truly loves thermodynamics and it shows, he is clearly interested in the course material and it makes the class more interested as well. |
| Dr. Barry always has interesting presentations and relates everything we learn to real life. He was always prepared, professional, and knowledgeable when answering questions during class. His adaptation to the flex curriculum by providing extra resources to learn helped me understand the class even more. |
| lots of different topics within the subject of thermodynamics |
| The video lectures were good and concise, Dr. Barry did a great job of answering any questions we had and relating them to real world applications, and all of the work from past years on github was helpful |
| Provided lots of practice problems and just generally made lectures interesting |
| Additional time to complete exams and quizzes is in my opinion beneficial as it reduces stress imposed by time constraints and even allows the student to learn while taking the exam leading to a more comprehensive understanding of the subject material. |
| we had access to old homework and quizzes to learn from even more examples than we could have gone through in class. It was an extremely helpful tool. |

### What could the instructor do to improve?

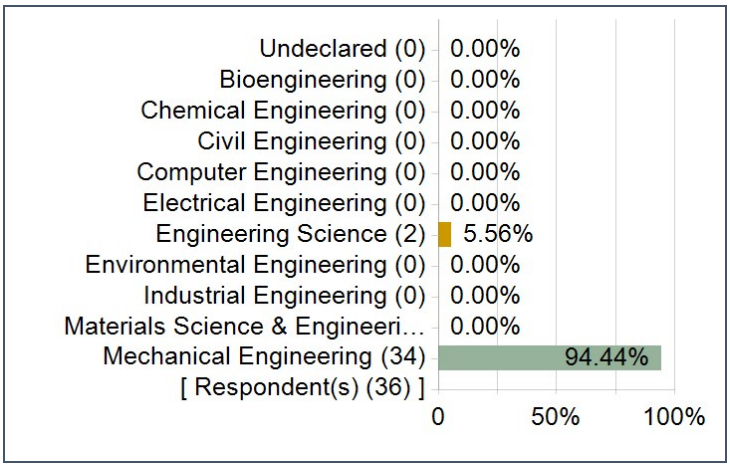
| Comments |
| --- |
| Find something he enjoys doing. He seemed so sad :( |
| N/A |
| N/A |
| Unsure |
| There was too much work compared to my other classes. The two classes I had with Barry were the most work I have recieved for any class and was also the hardest work. |
| Variety of examples, from easy to intermediate to hard ones with steps. |
| Nothing |
| Not much really, learning online sucks so I'm sure teaching online is also pretty awful, but Dr. Barry is doing a pretty good job of it. |
| Video demos of real–life thermodynamic devices would have been very helpful to build an understanding. |
| Try to convince the university to make the class not at 9:00 so that I can be more awake during it on Mondays (and every other day) |
| The projects, although interesting, we're slightly unnecessary and just added more workload to my semester. |
| Some change in the way worksheets are administered or conducted could be useful. I know that in its current form they're made to push students to attend office hours, but it just doesn't work as well in a remote learning environment compared to in–person. |
| I don't think there's much that can be done. |
| I cannot think of anything |
| In the recorded lecture videos, he talks very fast and sometimes I had to watch it 3 to 4 times just to understand what he was talking about. I liked that the videos were only a couple minutes long but an extra 30–45 seconds for talking a little slower with a little more pauses would be great. |
| Honestly not much, I very much enjoyed Matthew Barry’s instruction |
| A lot of assignments are spread out on different sites. Questions on top hat, examples on github, quizzes on canvas, midterms through email, class recordings on box. It would be easier to follow if it were more centralized. |
| _____ |
| his class is a lot of work, and its a bit hard having him for two classes at a time, but i feel it was just the course load that was a bit heavy |
| decrease the workload of the course so instead of scrabbling to try to get everything done each week, we can take our time and figure out how things work which will lead to better understanding. |
| nothing |
| N/A |
| technological issues |
| I prefer the way this class was taught, I did very well with it based upon his teaching style and believe that there is no need to change anything for this class. |
| Maybe explain the hidden assumptions in the questions... I didn't get those right away |
| I don't really know its hard to tell with the online structure of class. I'm personally not a fan of the flipped class |
| I found that in an online format it was difficult to stay focused during class however, that is a reflection on the zoom format and not on professor Barry. |

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

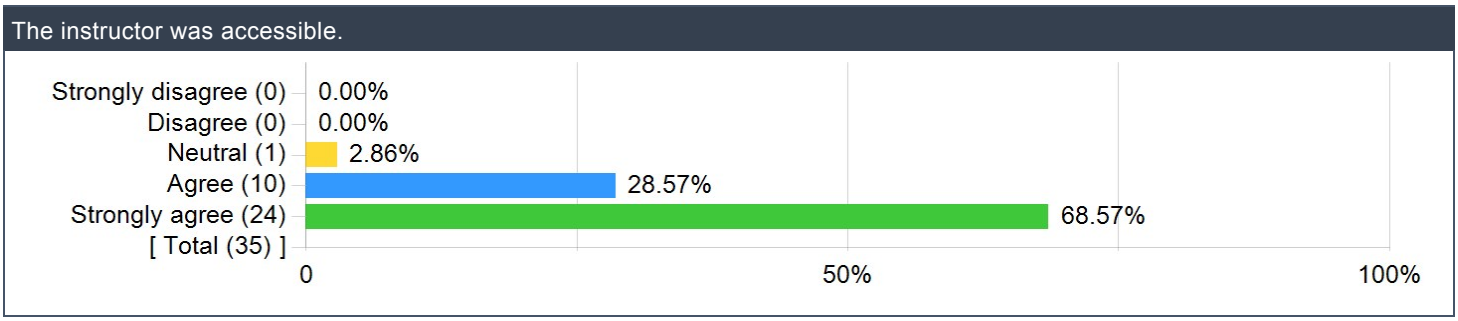
| Comments |
| --- |
| You put your all into this course. I really appreciate that. |
| Dr Barry has completely changed my view and confidence in obtaining my degree and has done the best job by far out of any professor during the pandemic. it is clear he truly cares about teaching his students and their own wellbeing |
| N/A |
| N/A |
| I struggled in this class because of the difficult of the content and the difficulty of learning online. This in turn made me struggle in all my other classes because I was spending too much of my time focused on this class. |
| N/A |
| I really enjoy this class and so far you have been my favorite professor |
| I get more out of classes when there is a clear real world application. Demonstrations of systems would help me build a greater understanding of the material presented. |
| Although making the tophat homework optional relieved some stress, I honestly feel that it should be required. The fact that it is optional sometimes means that I am unable to muster the self discipline to do it, and practicing the material does actually help (what a surprise). |
| He's one of the few professors that gets that his students have limits during the pandemic semesters. |
| You're doing a great job. |
| I wish I could have put more time into this class. I cannot say I expected, back when I signed up for this class, what my life at home would be like now. This is a hard subject for me to wrap my head around, and I'm trying my best, but I know that my grades don't exactly reflect that. |
| I appreciate him going above and beyond to make school work during online classes and his dedication to providing quality education. He is an excellent professor. |
| I appreciate how much he cares about his students, and how much he enjoys teaching the course. |
| I really enjoyed your class :) |
| The step by step answer sheets are very helpful when going back to see where a problem went wrong, or if there was a better way to solve it. |
| I liked that there were ungraded tophats after class so you could test your understanding of materials without the worry of how it will affect your grades. |
| thank you for seeing the students were struggling and actually doing something about it |
| n/a |
| N/A |
| Great job teaching the class |
| Dr. Barry is a great professor and I will make sure to take him if he offers other classes during my next few semesters. Out of all professors I have had at Pitt, I have learned the most from him and retain the information well, which allows me to apply it to real life. |
| I felt there was a lot of info crammed into the class and I understand why. But I don't know how to make that seem better. I also felt unprepared to do a group project at the end of the semester... I have 3 other group projects currently going on and wish I could put equal effort to all of them |
| When I see you're teaching a section of a course I have to take I try to make sure yours fits into my schedule |
| I really liked that you felt just as human as any of us students it made you very personable and approachable. Also, I enjoyed the real world connections you made in lectures a lot. |

## 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.**



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

| Comments |
| --- |
| Do examples from the book. They're helpful practice for the midterms. |
| ask questions, stay after class and talk with Dr. Barry if you have questions, go to office hours! |
| N/A |
| Work through the example problems. Use EES when appropriate. write down your state variables. divide kinetic energy by 1000 |
| N/A |
| Complete tophat and always make sure you start the work earlier rather than later |
| Do more practice and ask more questions |
| Talk to other people in the class and use office hours to your advantage. |
| Be consistent with watching the lecture videos before the class. It's easy to convince yourself that youll just do it after class, but the live lectures make way more sense when you show up to them with a basic understanding already |
| Read the diddly darn textbook. |
| Read the book. The associated book for this course is great. |
| Make sure to watch youtube lectures prior to class. |
| Keep up with the videos. Even if you don't have the time to take nice notes, watch them so that you know what's going on. |
| Prepared more before class and did more of the optional homework |
| Just keep on top of your work load and communicate with the prof |
| Go to class. Attendance was pretty poor, don't "just watch it later" and never get around to it. |
| Stay more on top of lectures. It is easy to fall behind in watching the pre lectures. |
| you need to stay on top of every lecture and actively do the in class worksheets while in class |
| Start all assignments early, they quickly pile up |
| Watch videos as soon as possible. |
| Go to more office hours |
| Pay attention to the class and go to the lectures and you will do just fine. His lectures are easy to follow and are always available to rewatch. He also is always available (as well as TAs) during office hours and takes the time to help you learn if you are not understanding topics |
| understand the steam tables early on, go to office hours. |
| not take the course during a global pandemic |
| do all the Tophat questions and stay after class to do them. It's bonus office hours with Dr. Barry (or one of the TA's), and a super effective way of making sure you know how to do the problems. |
| attend office hours even if you don't have a particular question in mind. |

## 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. | 36 | 4.31 | 0.86 |
| Your ability to identify, formulate, and solve complex engineering problems by applying principles of science. | 36 | 4.28 | 0.85 |
| Your ability to identify, formulate, and solve complex engineering problems by applying principles of mathematics. | 36 | 4.25 | 0.84 |
| Your ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare. | 36 | 3.72 | 0.97 |
| 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). | 36 | 3.69 | 0.98 |
| Your ability to apply engineering design to produce solutions that meet specified needs with consideration of environmental and economic factors (i.e., sustainability principles). | 36 | 3.69 | 1.01 |
| Your ability to effectively communicate verbally with a wide range of audiences. | 36 | 3.61 | 1.15 |
| Your ability to effectively communicate in writing to a wide range of audiences. | 36 | 3.58 | 1.16 |
| Your ability to recognize ethical and professional responsibilities in engineering situations. | 36 | 3.75 | 1.16 |
| Your ability to make informed judgments that consider the impact of engineering solutions in global and societal contexts (i.e., sustainability principles). | 36 | 3.81 | 1.01 |
| Your ability to make informed judgments that consider the impact of engineering solutions in economic and environmental contexts (i.e., sustainability principles). | 36 | 3.78 | 0.99 |
| Your ability to function effectively on a team whose members together provide an inclusive environment, collaboration, and leadership. | 36 | 3.75 | 0.94 |
| Your ability to function effectively on a team whose members together establish goals, plan tasks, and meet objectives. | 36 | 3.81 | 0.92 |
| Your ability to develop appropriate experiments. | 36 | 3.69 | 0.98 |
| Your ability to conduct appropriate experiments. | 36 | 3.69 | 0.92 |
| Your ability to analyze and interpret data and use engineering judgment to draw conclusions. | 36 | 4.19 | 0.79 |
| Your ability to embrace new learning strategies to independently acquire and apply new knowledge to solve engineering problems. | 36 | 4.14 | 0.76 |

## Remote Instruction and Learning Questions

### Instructor Interaction

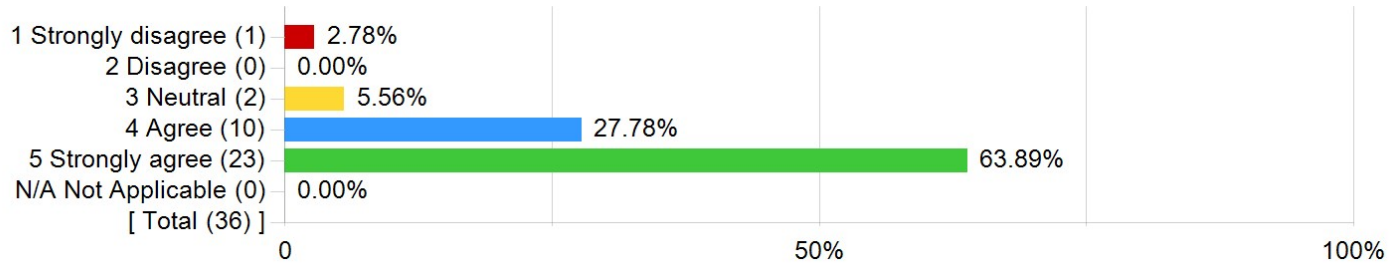
| Question | Results | | |
|---|---|---|---|
| | Response Count | Mean | Standard Deviation |
| I was able to interact effectively with the instructor during the remote aspect of this course. | 36 | 4.50 | 0.85 |

### Course Resources

| Question | Results | | |
|---|---|---|---|
| | Response Count | Mean | Standard Deviation |
| I had the resources I needed to finish my coursework during the remote aspect of this course. | 35 | 4.46 | 0.92 |

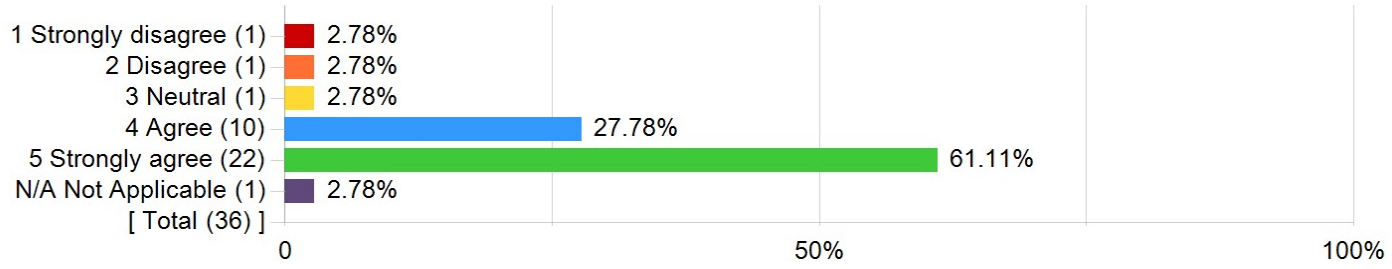
## Instructor and Course Details

I was able to interact effectively with the instructor during the remote aspect of this course.




| Statistics | Value |
|---|---|
| Invited Count | 44 |
| Response Count | 36 |
| Response Ratio | 81.82% |
| Mean | 4.50 |
| Median | 5.00 |
| Mode | 5 |
| Standard Deviation | 0.85 |

I had the resources I needed to finish my coursework during the remote aspect of this course.




| Statistics | Value |
|---|---|
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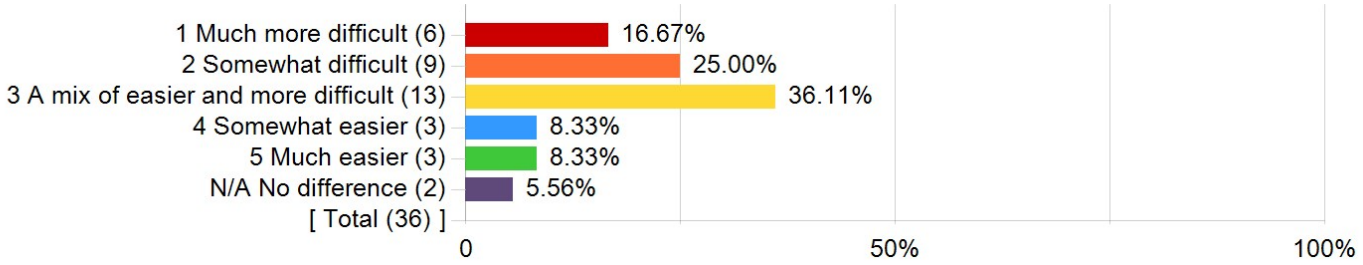
| Response Count | 36 |
| Response Ratio | 81.82% |
| Mean | 4.46 |
| Median | 5.00 |
| Mode | 5 |
| Standard Deviation | 0.92 |

## Level of Difficulty

| The remote aspect of this course made it (blank) for me to learn. |
|---|




| Statistics | Value |
|---|---|
| Invited Count | 44 |
| Response Count | 36 |
| Response Ratio | 81.82% |
| Mean | 2.65 |
| Median | 3.00 |
| Mode | 3 |
| Standard Deviation | 1.15 |

## What made the remote environment easy for this class?

| Students |
|---|
| lots of office hours, easy to ask questions, ability to rewatch past lectures |
| Lecture recordings were nice so you could go back. |
| We could always go back and rewatch lectures and videos |
| Matthew Barry was very accommodating and understood this semester was rough for everyone. |
| Take home exams took away the stress of a time constraint. |
| The ability to watch the bulk of the lecture material on your own time. The class being more open for questions. |
| barry is very organized with canvas and github, lots of access to resources |
| Do the work on your own time |
| The ability to have recorded lectures |
| easier to go to office hours, more accessible |
| being able to go back and rewatch lectures if needed |

## What made the remote environment more difficult for this class?

| Students |
|---|
| I just struggle with online learning in general and i find it hard to learn without the hands on type of environment |
| N/A |
| It was difficult to find motivation when you are home all the time and are faced with more distractions than usual |
| Everything else. I'm not meant for remote learning. |
| It's more difficult to stay attentive in class in a remote environment. |
| Lack of knowing your classmates to work on homework and for studying. But this is similar for all classes I am enrolled in. |
| the outside of time class work and lecture mix, feels easy to just sit and not pay attention |
| falling behind |
| The online environment as a whole |
| much much easier to skip class |

**What do you think the University should know about your experience as a student in the current remote learning situation?**

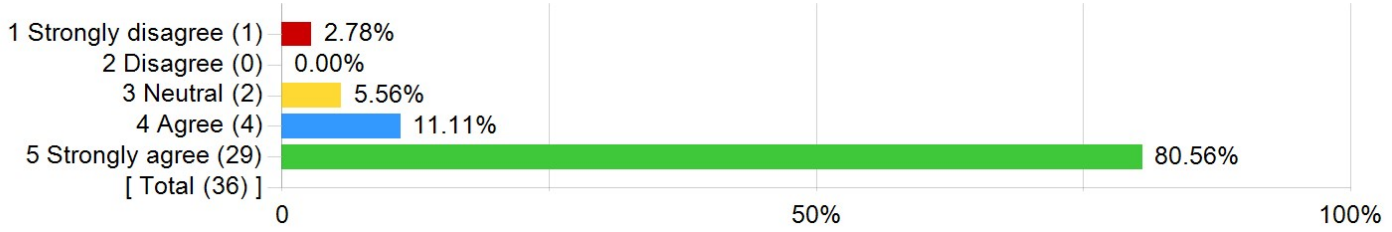
| Students |
|---|
| Bad but necessary |
| it has been extremely hard, especially in the engineering department. my GPA is struggling and my mental health has taken a noticeable decline |
| N/A |
| Difficult |
| I feel like it was optimized as much as possible and that my learning skills have adapted to both situations |
| Remote learning is just absolutely awful and we as a school were not at all prepared for it. Some professors have done a pretty good job, but the thing is across the board I'm just not able to learn as well. Also "mental health" days are incredibly stupid and do not even contribute slightly to anybody's mental health. |
| I like the flipped format of this class. |
| Not Dr Barry's fault in the slightest– but remote learning is terrible in every way compared to in–person, and the university needs to be doing whatever they can to ensure we are back in the classroom for the entirety of next fall. The fact that Pitt charges full tuition for this is disgraceful. |
| Overall, the remote learning situation is more mentally exhausting than in–person learning. |
| Remote learning is nowhere near as effective as in person class, I hope we can return to in person classes as soon as is safely possible. |
| When things happen at home, it's hard to ask for help from instructors. I feel like it's not appropriate to ask for accommodations because of my situation when so many people may be going through the same thing and be handling it much better than I am. Students should be given a week break mid–semester. It is hard enough as it is when it's expedited, and then we don't get a real break at all. It would help students who are going through a hard time, and need that week to catch up. |
| The reverse classroom format implemented this semester for all of my courses has made my life significantly harder and more stressful. It was not this way last semester and its frustrating. Professor Barry is the gold standard of professors and deserves a raise. |
| I personally can't stand remote learning. Thankfully we will be in person in the fall. |
| I like having the videos saved, very helpful, but ungodly to the psyche |
| The food was pretty good. |
| The difficulty in working on your own for almost all assignments and studying. |
| please do more to help students mental health |
| It sucks being in front of a computer all day! |
| N/A |
| bad sleep schedule and shortening attention span, help |
| There was nothing much different from the remote learning to a normal semester other than having human interaction with my peers. |
| This is hard on mental health, not having a seperation between home and school was difficult. Also while this didn't happen with Dr. Barry, other professors seemed to thing that because we were working from home we could somehow spend even more time doing school work than we would during a normal semester. |
| The online format is much more taxing on mental health than in–person. |

## Diversity and Inclusion

| Question | Response Count | Mean | Standard Deviation |
|---|---|---|---|
| The instructor creates an inclusive learning environment for all students. | 36 | 4.67 | 0.83 |

## Details

The instructor creates an inclusive learning environment for all students.




| Statistics | Value |
|---|---|
| Invited Count | 44 |
| Response Count | 36 |
| Response Ratio | 81.82% |
| Mean | 4.67 |
| Median | 5.00 |
| Mode | 5 |
| Standard Deviation | 0.83 |