



Project Title: **2194 - Teaching Survey Spring 2019**

Courses Audience: **92**

Responses Received: **84**

Response Rate: **91.30%**

Subject Details

| | |
|-----------------|---|
| Name | MEMS 0051 - INTRODUCTION TO THERMODYNAMICS - 1060 - Lecture |
| DEPARTMENT_CD | MEMS |
| CAMPUS_CD | PIT |
| SCHOOL_CD | ENGR |
| CLASS_NBR | 14807 |
| SECTION_NUMBER | 1060 |
| TERM_NUMBER | 2194 |
| COURSE_TYPE | Lecture |
| CLASS_ATTRIBUTE | |
| First Name | Matthew |
| Last Name | Barry |
| RANK_DESCR | Assistant Professor |
| TENURE | NT |

Report Comments

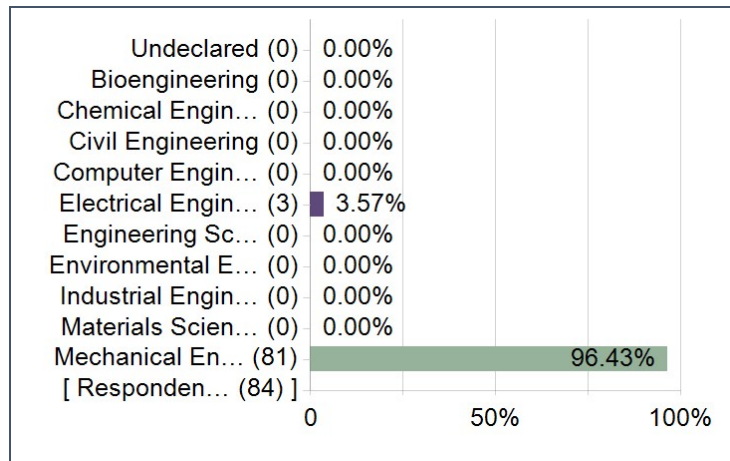
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Instructor and Course Survey Results:

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

Creation Date: **Wednesday, May 01, 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

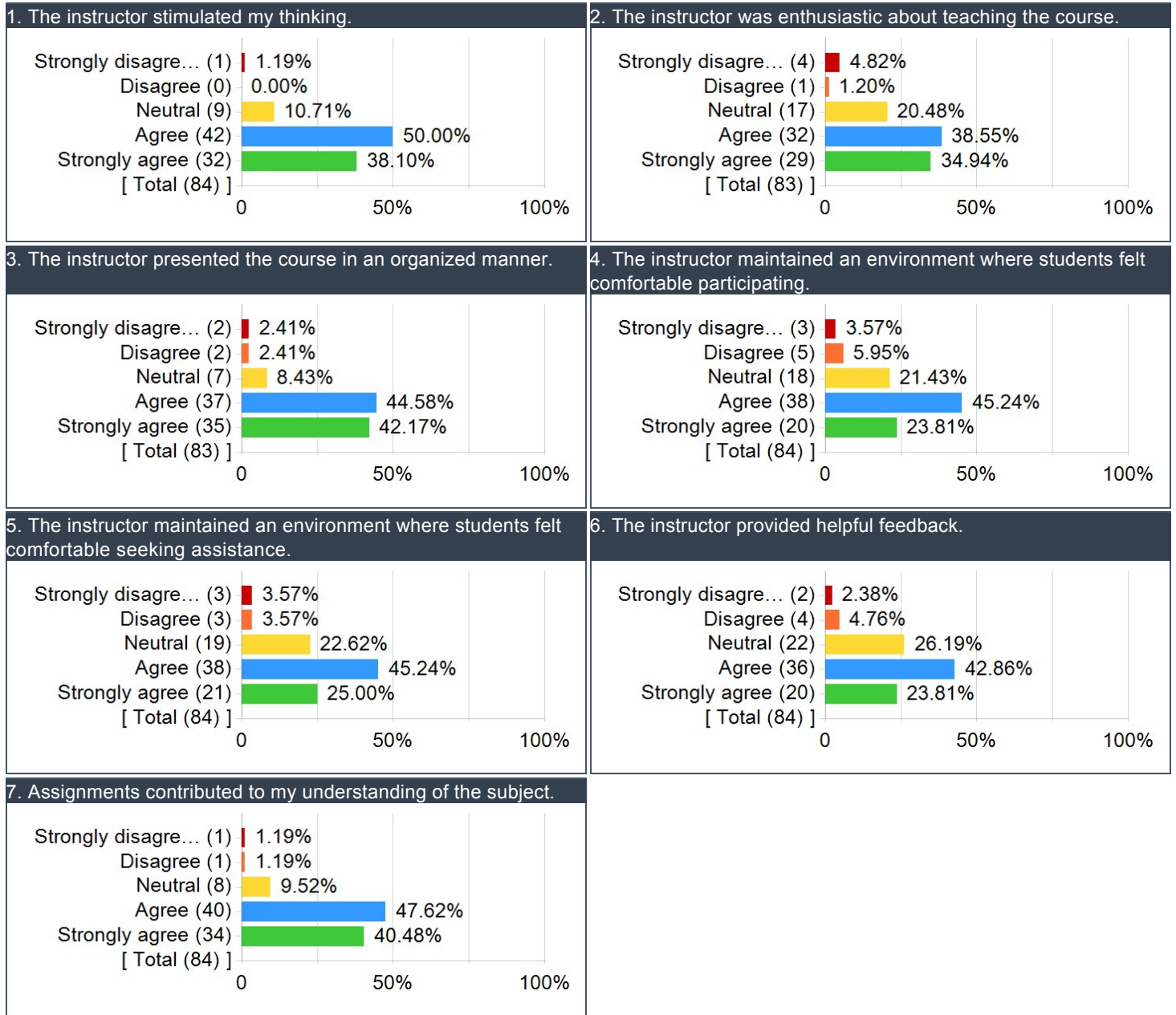
Instructor Summary of Results - Scale: Strongly Disagree (1) to Strongly Agree (5)

| Question | Results | | |
|--|----------------|------|--------------------|
| | Response Count | Mean | Standard Deviation |
| The instructor stimulated my thinking. | 84 | 4.24 | 0.74 |
| The instructor was enthusiastic about teaching the course. | 83 | 3.98 | 1.02 |
| The instructor presented the course in an organized manner. | 83 | 4.22 | 0.88 |
| The instructor maintained an environment where students felt comfortable participating. | 84 | 3.80 | 0.99 |
| The instructor maintained an environment where students felt comfortable seeking assistance. | 84 | 3.85 | 0.96 |
| The instructor provided helpful feedback. | 84 | 3.81 | 0.94 |
| Assignments contributed to my understanding of the subject. | 84 | 4.25 | 0.77 |

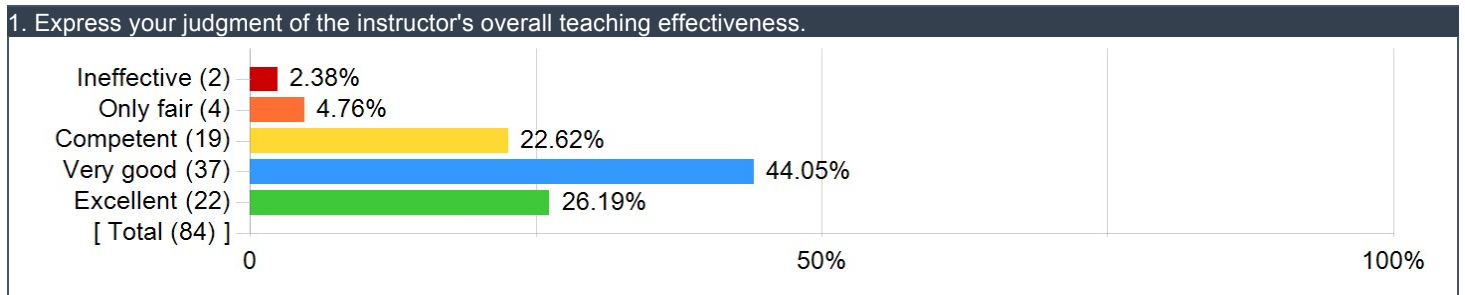
Instructor's overall teaching effectiveness

| Question | Results | | |
|---|----------------|------|--------------------|
| | Response Count | Mean | Standard Deviation |
| Express your judgment of the instructor's overall teaching effectiveness. | 84 | 3.87 | 0.94 |

Instructor Items: Detailed Results



Instructor's overall teaching effectiveness:



Comments

What did the instructor do to help you learn?

| Comments |
|---|
| example problems and having the slides to write on |
| He provided real life examples during lecture to teach specific concepts and what areas in industry they can be applied to as well as providing a detailed syllabus showing the topics that would be covered, when they would be covered, and what section in the text we could find them. |
| I liked when the class was flipped and more problem based. |
| The only thing that helped me learn during this course that the instructor did was have an organized lecture style. The instructor himself did nothing but read over slides and review a limited number of basic problems that no where near reflected the difficulty level of the problems on the exams. |
| The homework was helpful and doing example problems in class was also beneficial. |
| Example problems and HW were beneficial |
| Effective homework assignments and in class examples. |
| the laws of thermodynamics |
| The lecture slides are great and the teaching method is good as well. The professor presented the material extremely well and supplied us with challenging problems |
| enthusiastic towards thermodynamics and kept my attention |
| Good notes and presentations |
| Very in depth explanations to questions. |
| Provided examples in class. |
| explained material well |
| He was very helpful and available |
| His slides were very clear. |
| All things thermodynamic related |
| Good at explaining topics |
| He challenged me with difficult exams. |
| He had good lectures and substantial homework |
| Went through examples thoroughly to ensure our understanding of the conceptual and mathematical aspects of the class. Showed actual enthusiasm and enjoyment while teaching the course which made the 9am lecture and subject matter more engaging. |
| Organized lectures and great examples. |
| Homework assignments, extra lecture videos were nice to have more references. |
| Did multiple examples every lecture usually |
| Good examples and clear notes |
| he was there when i needed him |
| The switch from mostly theory to mostly examples was one I found useful. |
| He applied the concepts to real-life situations in the field. |
| How thermodynamic systems work and how to develop information on them using given variables and a steam table. |
| Taught us to think like engineers and know why we are doing what and how it works rather than just plugging numbers into equations because we know that is what to do for the problem, but not knowing why. He makes us think more like we will in actual jobs after school. |
| I liked that he had all of the lecture slides on courseweb and that the homework was usually closely related to the lectures in class |
| He went over lecture slides in class. |
| Very straightforward and organized, yet engaging. |
| Provided detailed lecture notes and instruction |
| Very helpful during office hours. |
| Instead of just presenting the formulas, you presented the formulation of the equations which really helped in our understanding. The homework was also very challenging, but I thought it was good because it forced us to seek help and understand the material. |

| Comments |
|--|
| Examples |
| The instructor did a good job by providing many examples within the lectures so I could understand how to apply the theory of thermodynamics. |
| Went over examples in class. |
| organized and explained how what we're learning is used in professional engineering. |
| Homework helped to a certain extent. |
| Providing examples in addition to the theory presented in lecture was really helpful! |
| Examples in class as well as homework |
| posted homework solutions and lecture videos |
| How to analyze changes in energy via steam and other gasses. |
| How to be an engineer that thinks before just plugging and chugging with all the variables I can find. |
| Made me think critically about how i solved problems |
| Had a range in difficulty of examples that helped drive home topics |
| Provided organized slides and lectures |
| He gave good examples both in class and online that highlighted the key concepts we needed to know. |
| Different relationships and when they are applicable in the world of introductory thermodynamics |
| Thermo |
| Demonstrated a common process to solve problems. |
| Multiple homework problems and posted videos of him explaining example problems to help us learn. |
| Dr. Barry was very direct about information and was incredibly organized and helpful during office hours. |
| He didn't wishwash around about homework problems or exams. Other sections are a cakewalk & this wasn't. I think it will help us in future thermodynamics & heat transfer classes. |
| how to think about problems in different ways. |
| very neatly presented lectures |
| Provide extensive homeworks that truly taught us the material. I learned most of the information from this course from doing the homeworks. |

What could the instructor do to improve?

| Comments |
|--|
| PLEASE give us past years' tests for practice. The reason we did so poorly on the first exam was because we had no idea what to expect for the test. |
| post lectures with writing from class rather than blank |
| I would not have attempted to flip the class halfway through the course I feel that made it harder to distinguish what was going to be covered as sometimes we would go away from what was on the syllabus to a different topic but I understand the reasons for doing so. |
| Post things (homework, lecture videos) on time |
| His attitude towards his students. I really liked Dr. Barry for Intro to Thermo and thought that he was really helpful. But this semester Dr. Barry was extremely condescending and sarcastic any time anyone had a question, in class and during office hours. He acted as if we have been studying the material as long as he has. He made it very clear that he did not want to be standing in front of us and that teaching us seemed to be a "lost cause". By the end of the semester, there were only a few brave souls that continued to ask questions. The questions were usually answered like 'oh common NAME, this is easy all you do is this and this' where he simply repeated what he has just said or changed his explanation ever so slightly. Everyone else just waits to see the TA. |
| He could do more challenging problems in class, I feel like he would do very simple ones then on the homework or exam they would be much harder. |
| Flipped class was a good idea but not beneficial when done randomly some days and not others |
| Taught the class well, nothing I would change. |
| More in class examples or example videos on courseweb |
| If possible, post the lecture notes. |
| Not make the tests impossible and discouraging |

| Comments |
|--|
| There is probably nothing I can say about Dr. Barry that hasn't already been said before. I really don't understand why he is a professor. He is clearly a very intelligent person, but he seems so disinterested in actually fostering a positive learning environment for his students. He seems more interested in giving students the impression that he is intimidating than actually being a teacher and being supportive of helping students learn. I never once went to Dr. Barry's office hours, not because I didn't have questions about the material, but because I was worried he would be rude and disrespectful and make me feel stupid for seeking assistance. Many times when students ask questions in class, his response is flippant and dismissive. |
| The real shame is that I think Dr. Barry could be an excellent teacher if he wanted to be. I really think he has the ability to teach a course in a way that is organized and understandable. I feel deep down that he could really be a TEACHER in the true sense of the word and share his knowledge with his students rather than just presenting material. At times he shows flashes of enthusiasm in describing course material and making connections between different concepts and applications. Dr. Barry takes the time to get to know his students' names, which I can't say for any other professor I've had thus far. |
| I of course heard feedback from other students that have taken courses with Dr. Barry in the past, and I really wanted to give him a fair chance, but I will never take another course with Dr. Barry if I can avoid it. While it is important that the professor is knowledgeable about the subject matter for the course, it is more important to me that professors that are respectful to their students and create an environment where students feel comfortable asking for help. Every student has their own story and their own hardships that they had to overcome to get to where they are now. I do hope that Dr. Barry reflects on the way he presents himself and treats his students because I think he could be a great teacher and a valuable resource for the department. |
| Practical suggestions for improvement: <ul style="list-style-type: none"> – Provide lecture notes farther in advance so we can review and annotate them prior to class – Explain course material in a less formal way that is more practical and understandable – More consistency in the schedule, especially for quizzes – Return graded assignments and exams in a more timely fashion |
| I think there is a disconnect between the exams and teaching. The in-class examples and homework's are very easy compared to what is expected of us in exams in a compressed time frame. The exams take students by surprise because all the other content in the course can be accomplished easily without a level of proficiency that is necessary for the exams. I think that the problems should match up more so that students know what to expect and are prepared for it. |
| harder problems earlier on to prepare for the exams |
| Not much |
| Do better examples to help on the homework. |
| The first few weeks of the course seemed a bit scattered. I'm not sure if it's just the nature of the class but it took me a few weeks to start to see how things came together. |
| Nothing |
| Give problems that resemble those on tests. |
| Make tests more demonstrative of our skills |
| Nothin |
| Prepare us more for exams instead of yelling at us when you fail all of us on our exam. |
| Be more clear on exam expectations. Large open ended problems with no outlines for points does not give the student a fair approach to the exam. |
| Make us feel more engaged and really explain the "why's" during tricky concepts |
| Nothing |
| curve our final grade which i believe we all desperately need it. |
| It would be helpgul to have test prep materials. |
| Approach his student's academic success with a little less sarcasm. |
| Less intense grading |
| N/A |
| Get tests back sooner before finals |
| I prefer quizzes on paper and not on tophat |
| Possibly put up more study material for exams such as practice exams, practice questions, or exams from previous years. |
| Include some previous exams so students know what questions look like. |
| I don't know if its a joke or not (i think it is), but you said if we had problems just go see Josh. Josh is very knowledgeable and helpful, but sometimes I wanted to go see you but felt it's not worth bothering you. |

| Comments |
|---|
| I don't know if its possible since it really depends on the eagerness of the class, but don't just go through the examples. It is really easy to zone out while youre working through a problem. You ask sometimes what a number in the steam table is, but I would try to make the examples more of a discussion instead of a walk through. This will take more time and might not work if the class doesn't participate, but it would help engage students better. |
| The grading return system is trash also. There's just a massive box outside your office and I can't sort through all of that to find my assignments. I pick up my stuff very regularly, but my newly graded assignments gets lost in the clutter after people try to look for their first homework with 2 weeks left in the semester. Most of my other professors just separate the assignments in letter ranges (A–I, K–M, etc.) and put them at the front of the room at the end of class. This makes returning assignments much easier and is not that difficult. I would recommend you do this method vs. putting our stuff in a box. |
| At least try to pretend like you want to be there and want us to learn something. Don't call yourself an "asshole" when it comes to grading exams. It lowers our respect for you. If you care about us passing this class, we are more likely to care and try harder. |
| Make the tests less impossible |
| In regards to coursework, I think he should just stick to giving paper quizzes as I had some issues with TopHat earlier in the semester. |
| More practice problems or exam review problems. |
| I think he needs to do a better job explaining the vapor dome in the beginning of the semester. I think he tried with the coffee/tea pot example but it didn't hit home. I think a video explaining how the vapor dome works is best. It is hard to think of water as something other than 100% liquid or steam. Also, it is very obvious Dr. Barry tries to bring humor into his lecture but he is also very sarcastic. I wish he would tone down on the sarcasm. Also, when asked "what is on the exam", I think the majority of people are looking to what to prioritize when studying. "IdK I dID NoT rlgHt It yET" is a terrible response. Everything is important in our minds which isn't always the case on the exam. |
| If you want to go to a fully flipped class for thermo I could see it being beneficial. I learned this last third of material the most effectively. |
| More studying material for exams |
| N/A |
| Less interpolation in practice problems to streamline the concepts. |
| Nothing comes to mind the homework, quizzes, and exams are fair if the time is put in to learn the material. |
| None |
| Do not make the course flipped. |
| Less deprecating humor |
| I would have liked there to be more structured review. To be clear, I don't wish Dr. Barry would coddle his students. I just wish we had some expectations set for the exams. I think the first exam was rough for everyone because we just didn't know what to expect. |
| Provide practice problems/study guides for the tests |
| N/A |
| Clearly identify various assumptions that we can make based on the wording of the problem. |
| Continue what he's doing, but not try to trick us during our exam. Try not to trick us on exam problems when he is able to trick us (test our learning) on homework problems. He will get the same effect across but the homework grade is a less % than our exam grades. |
| Dr. Barry could not make it seem like some questions are stupid even if they are. |
| Be available more for office hours. He is very good at explaining concepts & we could use that for homework or general questions. |
| more examples in class. |
| none |
| For one of our classes, Barry wrote a problem on the board and had the class solve it. I enjoyed doing that and wished we did that more often. Also, I really like how Dr. Schmidt uses extremely simple slides. I recommend Barry do the same. |

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

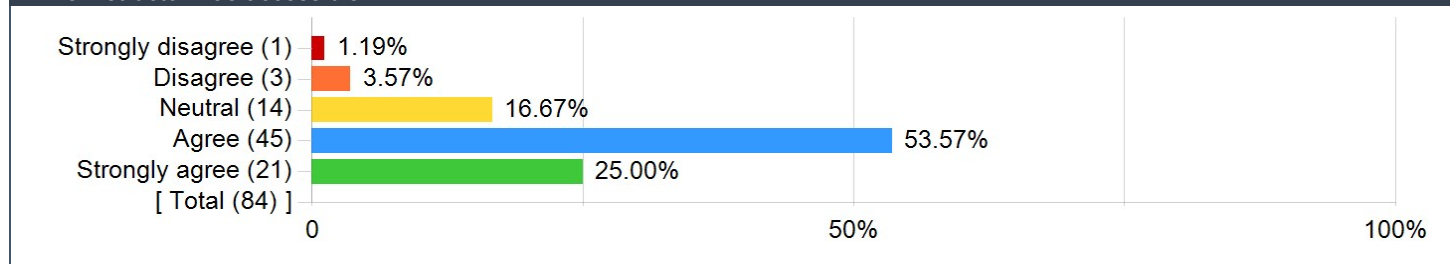
| Comments |
|--|
| Lecture videos usually are a lot harder to follow and pay attention to than in class lectures |
| No |
| It says something about the professor if the class average is a 41%. Also, it is pointless to assign the exact same problems that were done in class as homework. |
| N/A |
| No |
| nope |
| really good at teaching thermo |
| Be at his office hours during the times. |
| N/A |
| No |
| I like the class but sometimes you assume we know how to do something when we don't really yet |
| Appreciate that you want us to succeed by applying what we've learned in challenging yet fair ways to ensure we become good, capable engineers. |
| The typeset lectures are great, the videos are helpful extra resources. I would definitely continue with the example videos. |
| Nope |
| my friend is taking this same course with different instructor and he says their exams are pretty easy and from homework. They don't even have tables for (gas,water,solid) values. our exams are really hard. I hope Prof. Barry put more questions from our homeworks for our final exam. or curve our grades. cause we all work hard in that class. I know i did. |
| I liked this class much better than circuits. |
| Thank you for the encouragement, I really felt like I gained a better understanding of thermodynamics from this semester. |
| N/A |
| N/A |
| i.e. |
| He made the entire class so hard and the tests so much harder than everyone failed but I feel like if I somehow make it through this semester and move on to applied thermo, I will do well because I had Barry |
| N/A |
| Funny. |
| you said you wanted a 0 on your OMETS... |
| I was one of the morons that didn't use Kelvin on midterm 1. That being said I still thought that question 2 was a little unfair. We barely talked about anything going through the vapor dome at that point in time. Also, you I don't think it was right to blame us for having a low midterm one grade. You're the one that created the exam. I got to look at an old midterm one exam and it was much easier! I feel I am very prepared for applied thermo in the fall but time will tell. I had Dr. Barry in previous classes in the fall semester and really enjoyed his teaching style. Also, if you could post all the lectures in the begging of the semester, that would be great. |
| Thermo was hard but I feel like I learned it better than I would have if I was in the other section. Thanks for letting me pet your dog! |
| N/A |
| This is the last class I'll have with you at Pitt so thanks for helping me get my head out of my ass and actually become an engineer. |
| None |
| N/A |
| I really enjoyed your class. I thought it was fair, and I genuinely feel like I am walking away a better student because of it. Thermodynamics was interesting and made me excited to be a mechanical engineer. Thank you for that. |
| N/A |
| I enjoy the format of posting the slides and lecture videos, and doing examples in class the next day. I like being able to rewind and pause the videos to write down his explanation for the step, versus class where i struggle to write down everything because there is a lot going on. |
| Collin's phone number is 7245411925 send him memes. |
| none |
| At first I did not enjoy this course, and then I ended up liking it towards the end. I enjoyed Dr. Barry as a professor and will try to take him again in the future. Thanks for a good semester! |

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 |
|---|
| Make sure you understand where values for in class example problems come from (usually steam table values) as you're writing them down |
| Make sure you know when each equation is applicable, thermodynamics is like a big puzzle and that's why I enjoyed it but if you make one mistake finding a property then everything beyond that is also wrong. Table values are always the most accurate so if it's in the steam table use it and don't try and equate something you don't need to. |
| Study the examples in the textbook |
| I honestly don't know what I could have done differently. I went and saw him in his office, the TA, the other students that did the tutoring at night, formed study groups, reviewed all lectures, homework, relevant chapters, and online videos. |
| Take advantage of TA and fellow classmates for HW |
| Dive in to the material right from the start it will help more in this course than most. |
| Dont wait right before an exam to study |
| Actually study |
| Really focus on understanding this class on a conceptual level, don't think knowing some equations will work. |
| Read the book, do homeworks early. |
| Do harder problems earlier on and make sure you understand the concepts earlier on |
| Go to class |
| Study the books instead of the in class examples. |
| Study the initial material even if it seems intuitive. |
| Go to office hours. |
| Make sure you do book examples and draw Pv diagram |
| Read the book |
| Study more than assignments, make use of the textbook. Make yourself familiar with all different kinds of problems. |
| Try to really understand the homework's and quizzes more |
| Practice problems in the book. |
| Find other students to work on homework together. |
| Print the notes out before every class |
| Practice the examples and pay attention during class |
| Gone to office hours more frequently, worked on homework with a partner or in a group, ask more questions |
| The homeworks are manageable without looking up the answers so try your best to get through it with the notes |
| Read the text outside of class, learn how to do practice problems from the book. |
| Study with the book. Helps cover various cases of problems not always covered in class. |

| Comments |
|--|
| Take responsibility for your own learning. If you are struggling with something seem help from one of the various resources available to you. |
| Do the problems in the book. |
| Don't just memorize the formulas Understand where they come from and how they are used. The graphs are also really important, so make sure you understand them. |
| Go to office hours more. |
| PRAY |
| Make sure you are following along each week as it is really easy to get behind. Read the book along with attend lectures. Go over the examples once more. |
| Do as many practice problems as possible. |
| go to class |
| If you want to learn take Dr. Barry. IF you want an easy A take the night section. |
| Make sure you study and do problems from the textbook! That's the best way to expose yourself to a variety of problems! |
| Ask questions, understand concepts fully |
| Do the homework and pay attention in class |
| Know how the system is acting, don't rely on equations. |
| Practice the material that is taught, it's that easy. |
| Go to office hours |
| Make sure you have a conceptual understanding of all of the material |
| I could've devoted more time to studying as with any class, but I would say for Thermo, it's extremely important to do a variety of practice problems that get your critical thinking started. |
| Understand the homework assignments |
| Make sure you understand the theory and assumptions. Water is never an ideal gas. |
| Study the book problems, lecture problems, and homework problems. Don't be afraid to reach out to barry before the exam |
| Print your notes out but HAND-WRITE example problems. Also, put in the work to do book problems to study for exams. These are really good for practice. |
| start studying earlier and use the textbook for example problems |
| Go to lecture and always commit to learning material immediately. Not sufficient to slack off in lecture and assume you can cram everything before the exam. |
| Do the example book problems. The ones that aren't even in the back of the book. And skim through the textbook too. |
| go to class |

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. | 82 | 4.07 | 0.81 |
| Your ability to identify, formulate, and solve complex engineering problems by applying principles of science. | 81 | 3.95 | 0.89 |
| Your ability to identify, formulate, and solve complex engineering problems by applying principles of mathematics. | 81 | 3.90 | 0.94 |
| Your ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare. | 82 | 3.21 | 1.30 |
| 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). | 81 | 3.12 | 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). | 82 | 3.23 | 1.29 |
| Your ability to effectively communicate verbally with a wide range of audiences. | 82 | 2.56 | 1.38 |
| Your ability to effectively communicate in writing to a wide range of audiences. | 81 | 2.46 | 1.32 |
| Your ability to recognize ethical and professional responsibilities in engineering situations. | 81 | 3.12 | 1.30 |
| Your ability to make informed judgments that consider the impact of engineering solutions in global and societal contexts (i.e., sustainability principles). | 81 | 3.21 | 1.32 |
| Your ability to make informed judgments that consider the impact of engineering solutions in economic and environmental contexts (i.e., sustainability principles). | 82 | 3.21 | 1.28 |
| Your ability to function effectively on a team whose members together provide an inclusive environment, collaboration, and leadership. | 81 | 2.73 | 1.43 |
| Your ability to function effectively on a team whose members together establish goals, plan tasks, and meet objectives. | 82 | 2.70 | 1.43 |
| Your ability to develop appropriate experiments. | 82 | 2.66 | 1.39 |
| Your ability to conduct appropriate experiments. | 82 | 2.63 | 1.41 |
| Your ability to analyze and interpret data and use engineering judgment to draw conclusions. | 82 | 3.55 | 1.18 |
| Your ability to embrace new learning strategies to independently acquire and apply new knowledge to solve engineering problems. | 81 | 3.73 | 1.14 |