University of Pittsburgh

Summer 2017 - Teaching Survey Report for Matthew Barry

MEMS 0051 - INTRODUCTION TO THERMODYNAMICS - 1030 - Lecture

2177 - Teaching Survey Summer 2

Total Enrollment 30
Responses Received 28
Response Rate 93.33%

Subject Details	
Name	MEMS 0051 - INTRODUCTION TO THERMODYNAMICS - 1030 - Lecture
DEPARTMENT_CD	MEMS
CAMPUS_CD	PIT
SCHOOL_CD	ENGR
CLASS_NBR	14143
COURSE_NUMBER	51
SECTION_NUMBER	1030
TERM_NUMBER	2177
COURSE_TYPE	Lecture
CLASS_ATTRIBUTE	
ENROLLED_STUDENTS	33
First Name	Matthew
Last Name	Barry
RANK_DESCR	Assistant Professor
TENURE	NT

Report Comments

Table of Contents:

Instructor and Course Survey Results:

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

Creation Date Tue, Aug 22, 2017

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University Questions

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

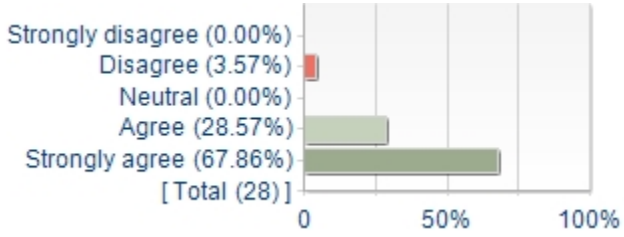
Question	Results		
	Mean	Response Count	Standard Deviation
The instructor stimulated my thinking.	4.61	28	0.69
The instructor was enthusiastic about teaching the course.	4.50	28	0.79
The instructor presented the course in an organized manner.	4.46	28	0.64
The instructor maintained an environment where students felt comfortable participating.	4.57	28	0.63
The instructor maintained an environment where students felt comfortable seeking assistance.	4.79	28	0.42
The instructor provided helpful feedback.	4.57	28	0.69
Assignments contributed to my understanding of the subject.	4.61	28	0.74

Instructor's overall teaching effectiveness

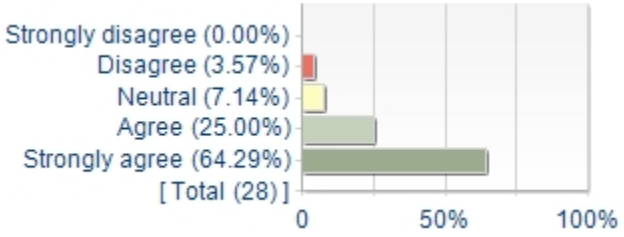
Question	Results		
	Mean	Response Count	Standard Deviation
Express your judgment of the instructor's overall teaching effectiveness.	4.43	28	0.74

Instructor Items: Detailed Results

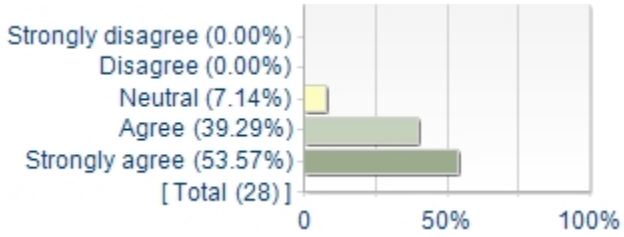
1. The instructor stimulated my thinking.



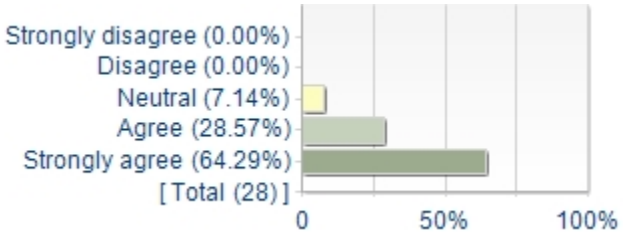
2. The instructor was enthusiastic about teaching the course.



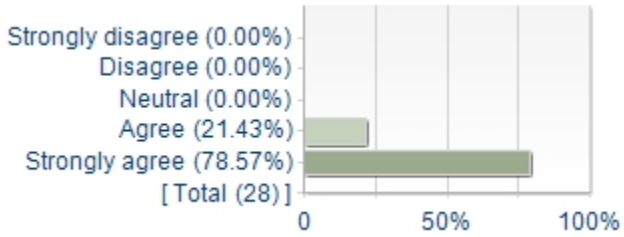
3. The instructor presented the course in an organized manner.



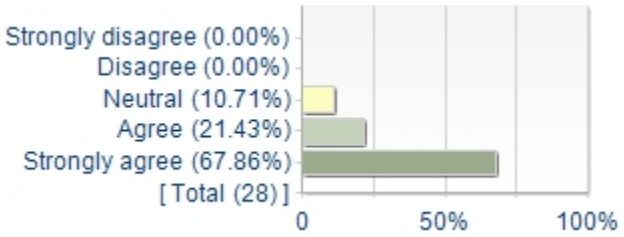
4. The instructor maintained an environment where students felt comfortable participating.



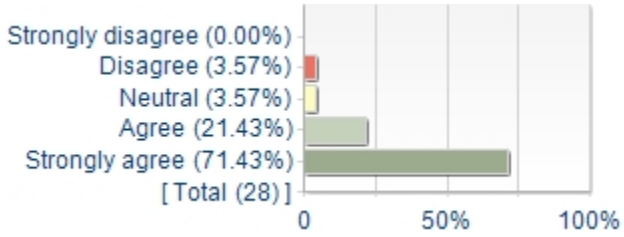
5. The instructor maintained an environment where students felt comfortable seeking assistance.



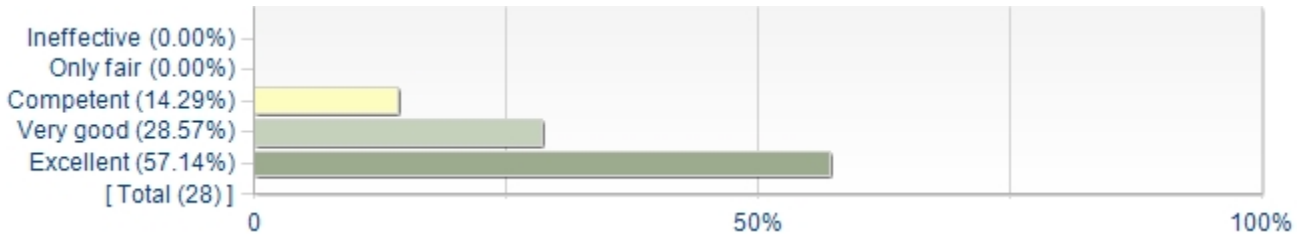
6. The instructor provided helpful feedback.



7. Assignments contributed to my understanding of the subject.



Instructor's overall teaching effectiveness:



Comments

What did the instructor do to help you learn?

Comments
Dr. Barry was very accessible outside of class and was always available to provide extra help. He was very good at getting to know students personally.
Lectures were very informative and well structured. Your willingness to talk to students during office hours was definitely helpful.
He challenged us to apply what we learned to new problems we hadn't seen (i.e. #5 on the 1st midterm). Also, taught us how to use software to solve problems.
He was really helpful in office hours, no questions were stupid questions.
Provided difficult examples in class to help drill in concepts and show the various ways of solving problems. Was always accessible via office hours.
Dr. Barry stimulated my thinking like no professor I have had before. He truly challenged you and wanted to make sure you understood the course material. His exams were very challenging but ended up being graded fairly. He constantly motivated me to work harder on the course and actually focused on learning the course material rather than focusing on getting a good grade.
Showed step by step solutions to problems.
He provided many in class examples and was willing to help students after class.
Went over each concept in depth.
Dr. Barry was a great instructor who clearly knows thermodynamics very well. I enjoyed having him has a professor.
Helped me learn and understand the foundations of Thermodynamics
easy to schedule office time with
The examples were very helpful but slowing down would have improved their effectiveness. Very often I was just copying what you were doing without enough time to understand it.
Walked through lots of example problems which were helpful
He put more emphasis on actually learning the material instead of just learning how to pass the tests.
was very helpful during office hours
Explaining things in an intuitive and organized way. I had taken this course once previous and the previous instructor, when explaining concepts and ideas, would jump from point to point, or idea to idea without any clear path. Also explaining things (at least the first time) using conversational language, instead of the usual technical jargon. That helped a lot.
Quizzes were effective in testing whether or not we actually know the material. Also the test's were thought provoking, rather than a regurgitation of homework questions.
Dr. Barry helped me learn how to set up and solve thermodynamics problems. In addition, he focused on teaching critical thinking skills necessary to understand what to do when coming across problems unlike those you have already seen.
– How to read a steam table – Entropy – Conservation of energy
Working through examples
Concepts regarding phase changes and entropy
Use appropriate and difficult examples during class. Also taught us a valuable online tool, EES.
Very organized lectures/presentations and homework's and quizzes that were very helpful.

What could the instructor do to improve?

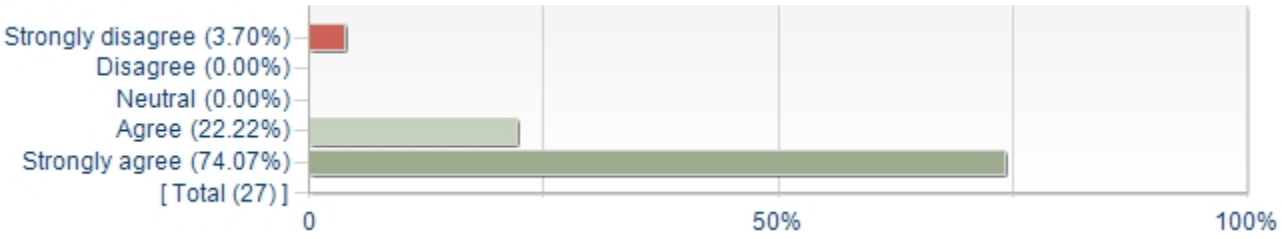
Comments
Move a little slower in lectures, if possible
Assign more homework. It was a daunting task to choose what book problems to cover, especially knowing there was no way to cover every single book problem.
Maybe provide more recommended book/practice problems besides what's given for homework and in class.
Better lecture management throughout the semester. We ended up having to cram in lectures on entropy and have a guest lecturer teach all of the isentropic material. This could have easily been avoided if a class wasn't spent on EES. Also, more homework should be assigned. There were only 4 homework assignments, and only 1 of those was for material after the 1st midterm. It's difficult to study for a final with limited resources and textbook problems being a much lower difficulty than test problems.
Dr. Barry could be a little bit more prompt and organized when it comes to presenting course material and getting back grades. For example, sometimes homework assignments were posted very late/not posted at all.
Towards the end we were given less homework and homework is what helped me understand the subject.
I wish we had gotten through the course material more thoroughly. We ran out of time at the end and may have missed some important concepts.
More assignments to practice for exams would be nice.
more example problems/add a recitation
Better organize how much information is taught and when. Too often with these 3 hour classes too much information was taught at once. Lessons would build on each other before you had an understanding of the past information. Other classes very little was taught. Spreading out the lessons would help greatly.
Explain more why he takes the steps he takes during examples– sometimes the order of steps taken was confusing or unclear as to its intended outcome. Less focus on the math more on the method
Do more examples in class where we work on them ourselves. Like we did for the Rankin Cycle.
bring pizza
Possibly more frequent communication about upcoming assignments, and events. This wasnt really much of an issue though.
1)More homework assignments during the term, it didn't feel like we had many assignments outside of class. 2)Making sure there is enough time on the exam to complete it in the time allotted.
Providing more homework or extra examples to study would be really helpful
nothing, the instructor was very good, but the 2.5 hour course was tough.
Honestly, more homework would have halped.
Better prepare us for exams, they were much harder than the material taught in class, homeworks and quizzes.

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

Comments
Thanks for all your help!
N/a
A great professor that truly wants to stimulate your thinking and get you interested in course material; gives the University a good name; wants the students to become capable and respectable engineers; wouldn't settle for less than your best; one of the best professors I have had so far.
Very approachable and knowledgeable.
It seemed like he really cared about the students and the subject.
Shadow is the man
Amazing Job. Really enjoyed the class. It was challenging and pushed me.
It seemed to take longer to write on the tablet than it would've on a more conventional slate like the board or projector. If the writing process could somehow be sped up, could spend more time explaining or doing even more examples
You are a superstar
nah
Probably one of the more enjoyable classes I've had as an engineer at this school. Also thank you so much for providing the book and hard copy of the steam tables. Much appreciated.
N/A
Thanks for a great summer!!

Swanson School of Engineering Items

The instructor was accessible.



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

Comments
Not Answered

ENGINEERING UNDERGRAD

This course has improved my:

Question	Results				
	Mean	Min	Max	Response Count	Standard Deviation
Ability to use math concepts to solve engineering problems.	4.33	3.00	5.00	27	0.73
Ability to use chemistry concepts to solve engineering problems.	3.52	1.00	5.00	27	1.25
Ability to use physics concepts to help solve engineering problems.	3.81	1.00	5.00	27	1.04
Ability to use engineering concepts to help solve problems.	4.15	3.00	5.00	26	0.78
Ability to design an experiment to obtain measurements or gain additional knowledge about a process.	3.04	1.00	5.00	27	1.48
Ability to analyze and interpret engineering data.	4.11	1.00	5.00	27	1.05
Ability to design a device or process to meet a stated need.	3.07	1.00	5.00	27	1.27
Ability to function effectively in different team roles.	2.41	1.00	5.00	27	1.39
Ability to formulate and solve engineering problems.	4.15	1.00	5.00	27	0.95
Ability to use laboratory procedures and equipment.	1.85	1.00	5.00	27	1.23
Ability to use software packages to solve engineering problems.	3.81	1.00	5.00	27	0.92
Ability to use CAD software.	1.41	1.00	5.00	27	1.12
Knowledge of professional and ethical responsibility.	2.74	1.00	5.00	27	1.43
Ability to write reports effectively.	1.85	1.00	5.00	27	1.35
Ability to make effective oral presentations.	1.67	1.00	5.00	27	1.24
Knowledge about the potential risks (to the public) and impacts that an engineering solution or design may have.	3.56	1.00	5.00	27	1.42
Ability to apply knowledge about current issues (economic/environmental/political/societal/etc.) to engineering-related problems.	3.00	1.00	5.00	27	1.41
Appreciation of the need to engage in life-long learning.	4.00	2.00	5.00	27	1.14