University of Pittsburgh

Summer 2019 - Matthew Barry MEMS 1071 - APPLIED FLUID MECHANICS - 1080 - Lecture

Project Title: **2197 - Teaching Survey Summer 2019**

Courses Audience: **54**
Responses Received: **22**
Response Rate: **40.74%**

Subject Details	
Name	MEMS 1071 - APPLIED FLUID MECHANICS - 1080 - Lecture
DEPARTMENT_CD	MEMS
CAMPUS_CD	PIT
SCHOOL_CD	ENGR
CLASS_NBR	17378
SECTION_NUMBER	1080
TERM_NUMBER	2197
COURSE_TYPE	Lecture
CLASS_ATTRIBUTE	
First Name	Matthew
Last Name	Barry
RANK_DESCR	Assistant Professor
TENURE	NT

Report Comments

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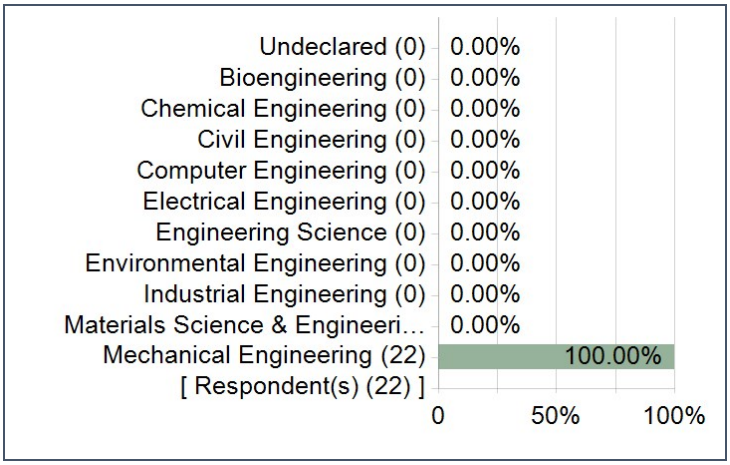
Instructor and Course Survey Results:

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

Creation Date: **Saturday, August 24, 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)

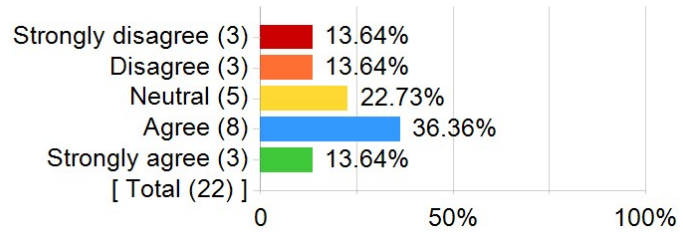
Question	Results		
	Response Count	Mean	Standard Deviation
The instructor stimulated my thinking.	22	3.23	1.27
The instructor was enthusiastic about teaching the course.	22	3.09	1.57
The instructor presented the course in an organized manner.	22	2.14	1.13
The instructor maintained an environment where students felt comfortable participating.	22	2.82	1.18
The instructor maintained an environment where students felt comfortable seeking assistance.	22	2.77	1.23
The instructor provided helpful feedback.	22	2.82	1.33
Assignments contributed to my understanding of the subject.	22	2.64	1.26

Instructor's overall teaching effectiveness

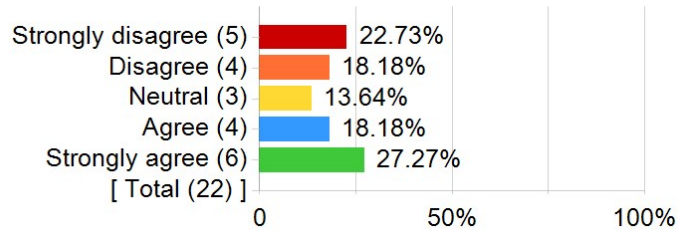
Question	Results		
	Response Count	Mean	Standard Deviation
Express your judgment of the instructor's overall teaching effectiveness.	22	2.32	1.13

Instructor Items: Detailed Results

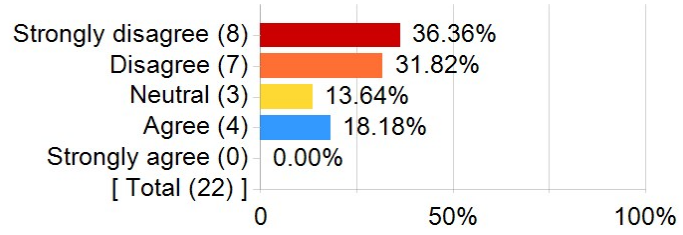
1. The instructor stimulated my thinking.



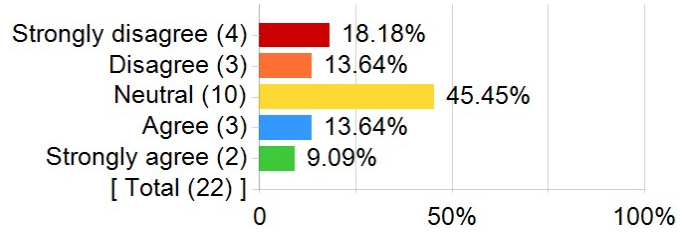
2. The instructor was enthusiastic about teaching the course.



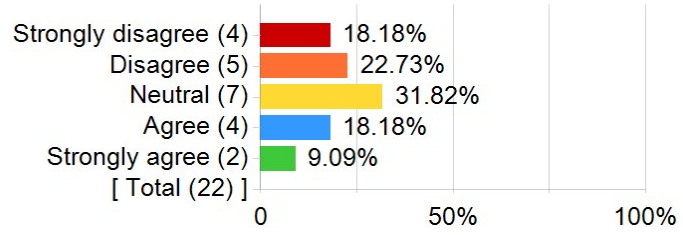
3. The instructor presented the course in an organized manner.



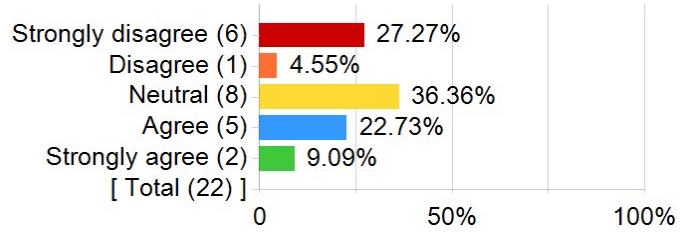
4. The instructor maintained an environment where students felt comfortable participating.



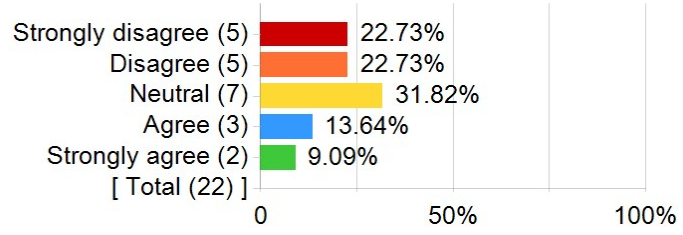
5. The instructor maintained an environment where students felt comfortable seeking assistance.



6. The instructor provided helpful feedback.

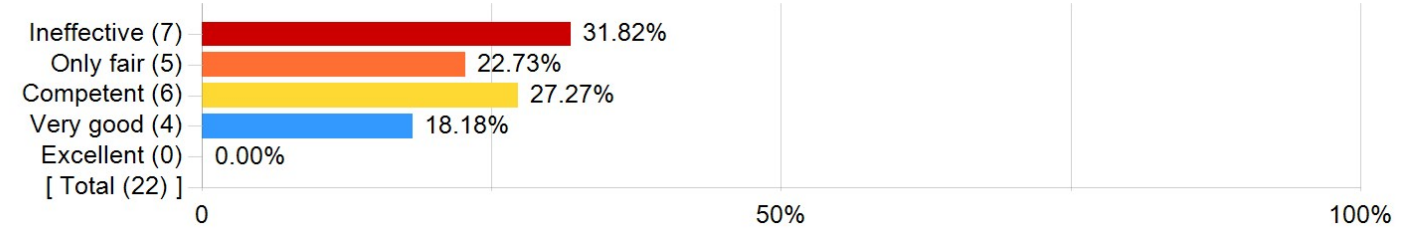


7. Assignments contributed to my understanding of the subject.



Instructor's overall teaching effectiveness:

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



Comments

What did the instructor do to help you learn?

Comments
I learned what the NS equations physically mean. I learned how fluids problems can be translated into computer problems via discretization and numerical methods.
Nothing
There wasn't much, I can confidently say that I don't know more about fluids than I did in May and I don't think that is a good thing
Nothing. This class was the most unstructured class I have ever taken.
He gave us guided notes early in the class but then things kind of fell of the rails. He was very helpful with the final project and doing every thing he could do give us an opportunity to ask for help on our project.
Not sure lmao
Dr. Barry knows what hes doing and can teach classes effectively, when he wants to that is
powerpoints
Nothing
Not a whole lot. Homeworks and quizzes fell off after the first couple of weeks.
Taught me how to properly run ICEM and CFX
Dr. Barry helped me to understand where the equations that we use came from derivation–wise.
The homeworks, quizzes, and lectures at the start of the semester were helpful. Then eventually they just stopped taking place. It would be nice if they continued.
N/A
Classes were helpful to prepare for project
The lectures were very in–depth.
Did some example problems on the board.
I learned a little bit about the Navier Stokes equations.

What could the instructor do to improve?

Comments
I could have used more homeworks. The 4 that we've done were very helpful in my understanding of the material. Also sometimes the slides move on too fast. And more written documentation during our learning of ICEM and CFX would have helped immensely.
Everything – Have an actual course structure – Don't assign the project rubric during finals week – Teach the material – Don't assign the project rubric during finals week – Be prepared for the project and have enough time to account for lack of license and giving us wrong Courant number – Don't assign the project rubric during finals week – Don't assign the project rubric during finals week
Not derive equations for an entire lecture, make lectures more engaging, not lace jargon into conversation so that students lose track of what's happening, and don't assign a project that should take a month+ two days before finals week.
STRUCTURE YOUR CLASSES. I understand that life is not always perfect, but the one thing that can always be structured is school.
Start the project earlier!!!!! Please! It was so stressful and rushed at the end of the semester. With an extra two weeks or even one week it would have been a lot less stressful and I would have been able to get better data.
I'm not sure, I don't fully understand what we learned. Fluids is an iffy subject. I don't know if doing more problems would help, but the derivations are beyond me.
be invested in the class. The whole class got put in a tough spot because he wasn't committed. I mean he gave us the final project on the Friday before finals week
more homework assignments, less in–class derivations
Assign project earlier
Teaching us to click buttons in CFX doesn't really do much for me. I wish we had spent more time discussing what the buttons we were pressing did, and why we set the settings that we did. Otherwise what I "learned" from the project can't really be reused. I learned what buttons to press but I don't know why so I can't apply it to much else.
Having the course be more organized would have been cool. I don't really feel like I learned anything after spending half the class doing CFD that I don't have a conceptual understanding of and that no competent company would ever have you do without a masters degree. Having a class or two on CFD would have been fine, but if I wanted to learn CFD I would have liked to have a conceptual understanding of fluids and then take a CFD course.
Could have done the project/class in general in a much more organized manner. I would have suggested teaching the second half of the course via flipped classes because the lectures in class were going too fast to absorb, understand and apply all of the information and I think that showed when we kept having to go back. I think having a flipped section would allow people to learn and apply this information at their own rate
Slow down a little bit. These are some hefty derivations and I was getting a little bit lost.
Keep the format of the class like the first part of the semester. Halfway through the class we basically just stopped learning and there was no direction.
–More homework assignments
N/a
Maintain a consistent homework & grading system throughout the term.
Run the entire class differently. Its unacceptable that he gave us work to do the first four weeks of class and then nothing for the next nine weeks until he assigned a time sensitive final project the Thursday night before finals week. To make it worse the numbers that were given to us to help us run simulations for the project were very time consuming (several days for one run) and most of the time got our files kicked from the super computer that we had to use (which only has 50 licenses for the entire university.) After several days of failed attempts it was finally revealed that the numbers were too large and that somehow we were supposed to have known that we had to use smaller numbers (not the numbers given to us in the project guideline) to get results. This was just a ridiculous expectation.
I think it would help a lot just to have an improvement in attitude. I felt like Dr. Barry did want to or care about teach our class despite claiming how much he liked studying fluid dynamics. I'm not sure if something else was going on outside of the classroom, but it was difficult to stay engaged in such a pessimistic environment.

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

Comments
Ansys is not THAT bad

Comments
I have always given my teachers good reviews in the OMETS until this class, where a lack of effort and foresight on the teacher's behalf resulted in students scrambling to finish the project during finals week so that they could go home on time. Also frustrating to pay for a course where I learned absolutely nothing.
I admire what you were trying to do and get that fluids isn't as easy as other professors make it out to be, but the delivery of it is all wrong. You kept each student wondering what would happen all summer in preparation for finals, projects, midterms, quizzes, and homeworks that never showed up until the very end. Structure the class a little better next time and students might see what you're trying to do.
Maybe do not wait until the week before finals week to introduce the final project. We were given the rubric for the project the day our final was supposed to be on... I'm not mad, just disappointed.
:(
nah chief
Please go easy on the grading
I have nothing positive to say about this course. I paid several thousand dollars to take this course during the summer session, and at the end of the course, I do not feel like I learned the material that should have been covered based on the course description, and the entire experience of taking this course with Dr. Barry has left me frustrated and angry. At the beginning of the semester, we were given a syllabus and a schedule, neither of which were followed. Dr. Barry only covered three of the six topics on the schedule. Our grade breakdown on the syllabus was as follows: Homework: 20%, Quizzes: 20%, Project: 20%, Midterm: 20%, Final: 20%. We had four homework assignments, two quizzes, and no midterm exam or final exam. We did not have a homework assignment or quiz after week six of the course. My friends in the course and I have no idea how the final grade will be calculated. Our project has been an absolute disaster. Dr. Barry did not provide any background information on what the project would be, the objectives or goals, process, or WHY we are doing this project. We were not given a written description of the project until five days before the last day of class. Instead, we spent three class periods (7.5 hours) constructing a mesh without the proper understanding of why were doing what we were doing or what the ultimate goal of the project would be. We have not even covered all of the necessary material in lecture to be able to understand the results of our simulations (e.g. we have not covered drag force in class and that is one of the quantities we need to evaluate and discuss). The project was assigned on Thursday, August 1st and due on Friday, August 9th (and then pushed back to Monday, August 12th, which is after finals week is supposed to be over). This gives us a WEEK AND A HALF to run six different CFD simulations (the three transient cases needing to be run for multiple days), process the data, and write a report. Furthermore, there are not enough licenses for everyone in the class to run their jobs at the same time, so many of us have had our jobs sitting in the queue with nothing to do but wait. There is no reason that Dr. Barry could not have assigned the project a month ago to give us a reasonable time frame to complete it. Instead, everyone in the class is panicking that we will not be able to finish the project, and there is the added stress that we have NO idea what the grading structure will be (is this project going to be 20% of our grade? 60%? 90%). Most of my friends and I are taking other courses this semester, so instead of allocating our time to adequately study for our other final exams, we are all trying to figure out how to get this project done. The worst part is that at the end of this project, we will have learned nothing about fluids, except what a nightmare this entire process has been. Dr. Barry has a serious problem with his attitude towards teaching and interacting with students. I have had him as an instructor for other courses in the past (and expressed concerns in previous OMETs), but this semester was far and away the absolute worst experience I have had thus far in this department. He clearly does not care about properly teaching the material or ensuring that students come away with the knowledge that they should at the end of this course. He is rude and dismissive when approached for help and often makes disparaging comments towards the class as a whole. I know that other students have had the same issues with Dr. Barry, and I also know that several of them have reached out to people in the department about it. It is a disgrace that we as students pay tens of thousands of dollars a year to this school and this is the educational experience we get in return.
I have had Dr. Barry for 3 other classes, and for the most part I really enjoyed all of those classes. This one I can't say quite the same, as this one was just too scattered and disorganized. The project was a complete mess because we didn't have enough time. I presume he overestimated how quickly we would learn to use ICEM. I think the project would have been much for interesting and fun if we had started it earlier in the semester. Instead all it did was stress me out.
I know you'll probably get some backlash on the project but I really appreciate you teaching us how to properly use this too
Your dog seems awesome and I want to give him/her so much love.
I feel like I didn't learn anything in this class.
N/A
n/a
NA

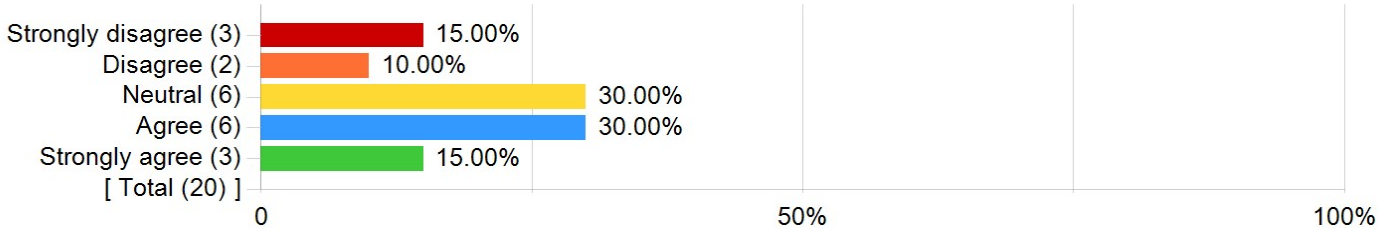
Comments
Please either stop teaching or start taking your classes more seriously and make them more structured. You are a very smart man so please help us learn instead of making us feel stupid.
Wish we could have been working on the CFD stuff earlier in the semester so we were more familiar with it for the project.

ENGINEERING

Swanson School of Engineering Items

The instructor was accessible.

The instructor was accessible.



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

Comments
Read the slides before class
Don't take Barry for applied fluids
AVOID AT ALL COSTS
Start practicing your CFD and CFX now.
Pray
Pay attention in class, even if it is super boring
read textbook more
Assign project earlier and provide the resources earlier so we can actually think about it
Go to office hours more often
Paid attention as much as possible in lectures
Print out the lecture slides and give yourself room to take notes.
I have no clue because as I am writing this I still have no idea how I did in the class since there are almost no grades for the class.
N/A
Do homeworks
Keep up with work & you'll be fine. Not much there is to do about inconsistent grading & homeworks.
Very little learning about fluid mechanics took place. I would suggest having an extensive background in ICEM before taking this 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.	19	2.95	1.13
Your ability to identify, formulate, and solve complex engineering problems by applying principles of science.	19	2.95	1.22
Your ability to identify, formulate, and solve complex engineering problems by applying principles of mathematics.	18	3.17	1.29
Your ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare.	18	1.94	1.11
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).	18	1.50	0.62
Your ability to apply engineering design to produce solutions that meet specified needs with consideration of environmental and economic factors (i.e., sustainability principles).	18	1.72	0.83
Your ability to effectively communicate verbally with a wide range of audiences.	18	1.56	0.86
Your ability to effectively communicate in writing to a wide range of audiences.	18	1.89	1.18
Your ability to recognize ethical and professional responsibilities in engineering situations.	18	1.89	1.18
Your ability to make informed judgments that consider the impact of engineering solutions in global and societal contexts (i.e., sustainability principles).	18	1.61	0.70
Your ability to make informed judgments that consider the impact of engineering solutions in economic and environmental contexts (i.e., sustainability principles).	18	1.67	0.69
Your ability to function effectively on a team whose members together provide an inclusive environment, collaboration, and leadership.	18	2.22	1.44
Your ability to function effectively on a team whose members together establish goals, plan tasks, and meet objectives.	18	2.06	1.26
Your ability to develop appropriate experiments.	18	2.22	1.22
Your ability to conduct appropriate experiments.	17	2.18	1.24
Your ability to analyze and interpret data and use engineering judgment to draw conclusions.	18	3.06	1.06
Your ability to embrace new learning strategies to independently acquire and apply new knowledge to solve engineering problems.	18	3.06	1.16