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Winter 2012 Final
50 students responded out of the total enrolled 78

Instructor with Comments Report

2012-04-06 - 2012-04-18 Report ID: MSR04734

Instructor: Kaylan,Kerim Berk
BIOMEDE 418 001

		Responses from your Students**							Other Users of This Item*					
									University Wide			School/College		
		5 SA	4 A	3 N	2 D	1 SD	NA	Your Median	75% Above	50% Above	25% Above	75% Above	50% Above	25% Above
1	Overall, this was an excellent course.	0	4	5	18	22	0	1.64	3.92	4.27	4.70	3.79	4.13	4.39
2	Overall, the instructor was an excellent teacher.	22	19	2	0	1	5	4.50	4.13	4.60	4.85	3.83	4.21	4.50
3	I learned a great deal from this course.	1	9	7	16	16	0	2.03	4.00	4.33	4.70	4.02	4.25	4.52
4	I had a strong desire to take this course.	1	17	13	11	7	0	3.00	3.63	4.13	4.60	3.50	3.95	4.22
15	I increased my ability to apply math and science knowledge to engineering problems.	3	14	10	12	10	0	2.75	4.00	4.23	4.50			
17	I increased my ability to analyze and interpret data.	1	9	17	12	10	0	2.65	4.00	4.30	4.50			
23	I increased my ability to formulate, and solve engineering problems.	0	11	9	15	12	0	2.27	4.00	4.18	4.50			
25	I developed a greater understanding of my responsibilities as a professional.	0	4	4	22	18	1	1.77	4.00	4.26	4.71			
26	My oral communication skills improved because of this course.	0	6	13	15	14	1	2.17	3.50	4.00	4.25			
27	My writing improved because of this course.	0	2	9	22	14	2	1.93	3.50	4.00	4.30			
30	I developed a greater understanding of the impact of engineering on the environment.	1	7	6	22	13	0	2.02	3.70	4.00	4.50			
34	I have a greater understanding of how course concepts apply to contemporary problems.	2	11	7	13	16	0	2.15	4.05	4.25	4.56			
35	I increased my ability to apply engineering tools and methods.	2	8	9	18	12	0	2.19	4.03	4.20	4.50			
201	The instructor gave clear explanations.	22	19	2	0	1	5	4.50	4.08	4.50	4.78			
216	The instructor acknowledged all questions insofar as possible.	26	16	1	0	1	5	4.65	4.23	4.59	4.83			
229	The instructor used class time well.	24	16	2	0	1	6	4.60	4.10	4.50	4.75			
230	The instructor seemed well prepared for each class.	24	15	3	0	1	5	4.60	4.30	4.67	4.86			
232	Work requirements and grading system were clear from the beginning.	10	20	6	5	8	0	3.78	4.00	4.33	4.67			
239	The amount of work required was appropriate for the credit received.	4	19	15	2	8	0	3.43	3.94	4.20	4.50			
501	I increased my ability to apply math/science knowledge to biomed engin problems.	3	11	10	12	12	0	2.50	n/a	n/a	n/a			
502	I increased my ability to solve problems at the interface of biology and engineering.	4	10	8	16	10	0	2.38	n/a	n/a	n/a			
503	This course increased the breadth of my knowledge in biomedical engineering.	2	16	6	10	14	1	2.50	n/a	n/a	n/a			
1273	This course increased my knowledge of biology or physiology.	1	10	10	10	16	1	2.25	n/a	n/a	n/a			

Written Comments

900 Comment on the quality of instruction in this course.

Student 1
Dr. Takayama should not teach this course again. I understand he does great research, but he does not care about this course at all. It's clear to everyone taking the course how little effort he puts into designing this course. This course really needs to be reevaluated. There is very little practical engineering relevance, and it does not follow the syllabus provided at the beginning. If this semester is any indication of the way this course is meant to be setup, it is unfair to require students to take this course; it is taking their money. Really just a worthless class, overall. Please take this into consideration and provide these students that make your university great with quality instruction.

Student 2
Terrible, terrible course.

Student 3

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With a title of Quantitative Cell Biology, you would think that a decent amount of cell biology would be taught (comprising 66% of the title of the course), but this was not the case. I am highly sceptical that deriving the equations that model a legnth of DNA as a steel beam will ever be of use to me. Ever. Also, I didn't learn any cell bio whatsoever.

Student 4
NA

Student 5
This class was very poorly instructed by the two professors. Dr. Takayama seemed uninterested in the course. His lecture slides were pulled directly from the course text book and it seemed as though he was looking at them for the first time during lecture. He often had difficulty answering questions on the material. He put no effort into making the class interesting on any level. Dr. Deng often simply lectured at the class. Though she seemed to care more about the class than Dr. Takayama, she was not an effective instructor nonetheless. Kerim and Byoung Chul were the saving grace of this course. I doubt that I would have been able to make through this course without them.

Student 6
I believe that this course needs to be re-evaluated by the Biomedical Engineering Department. I felt that the lectures are too long and to be honest it is very difficult to pay attention for 2 hours with a 3 minute break given whenever the professor feels like it. I felt that when I went to class that the professor only knew as much as they needed to in order to talk about the course, not necessarily enough to get the class interested in the material. I also felt very limited by the material itself, I feel that I will not use this course's information ever again because it seemed to only deal with theoretical examples.

The grading for the course is also something that really needs to be reworked. The homework seemed like it could only be done by going to office hours (which can be attested to that they were always packed with people). The book was very vague and all the "quantitative" material in it involved variables that repeated themselves and the book was a very difficult read. The exams were graded very generously in order to keep the "illusion" that the class was doing alright yet if they were graded appropriately I'm absolutely confident that the class average would be around a 40% on the exam rather than an 80%.

Please consider my comments and those of my peers because I feel that I am not alone in my concerns for this course. I hope that the Biomedical Engineering Project decides to put a greater emphasis on how this course is taught because I would hate to think that students in the future will have to "endure" this course rather than enjoy it.

Student 7
This course was not my favorite. It was not always clear what was going on and there seemed to be a lot of hand waving in regards to some questions. There is just a lot of material covered very quickly and students became more worried about memorizing equations for the exams than learning the actual material. Teaching could have been better. Professor Deng was an improvement.

Student 8
I think you already are well aware of the extremely negative reputation this class has. Dr. Takayama has a vague understanding of the material and presents already INCREDIBLY dry material in his lectures straight from the textbook, thus, adding to the dryness. Maybe the topic itself is already really dull to begin with and its not his fault. However, he doesn't seem to understand the material and doesn't hold office hours to clarify topics. He doesn't even pretend to care about the students. Professor Deng started off by presenting dull, dense material like Dr. Takayama, but learned of the student's discontent of her teaching methods and actually improved the quality of her lectures. I just think the class itself should be steered in a completely different direction.

Student 9
NA

Student 10
I do not understand the point of this course. The exams and the content was purely memorizational. I felt that the book was a reference book and the material taught was jut examples of specific situations instead of concepts that could be applied to variety of problems. My grade is a reflection of my ability to memorize explicit examples and equations.
If it weren't for the GSI (Kerim) I would be completely lost in the class. Thank you Kerim for your excellent help and explanation of the homework and key examples.

Student 11
The time conflict with BME450 limited my ability to attend lectures, but even with recorded lecture, not everything was explained clearly. Also, without going to office hours, the homework was difficult to understand and finish.

Student 12
This was the worst course I have every taken at the University of Michigan. I have completely wasted my tuition money on this course. The material covered is not even relevant to the course description. The book for the class was terrible and reading the book only decreased your grade. I had submitted answers on homework and the exams that were described int he book. All of these answers were marked as wrong and when I attempted to

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argue point back they said that the book was wrong. Also, Some students had the same answer as I did and they got the question right. When comparing exams, it seemed as if the graders were rolling dice. The teacher also had so many emails about a few questions so he decided no points were to be give back.

Takayama is also a useless teacher. In class he does not understand the material and does not come prepared. Students ask him questions and he cannot answer them or confuses himself. Sometimes he would ignore the question, pretend it was never asked and move on. I performed poorly on the first exam and asked if I could meet with Takayama to determine how I could improve. He told me that he is not willing to meet and that I should see the GSI and read the book. Clearly the book cannot help me because in his eyes it is wrong. On top of that, the GSI does not hold office hours. Not only that, Talayama refuses to hold any office hours. It did not help that he focused on his research at points instead of teaching

The end of the term project was a complete joke because it was peer graded and not graded by a teacher. The teacher also fell asleep during one of the presentations because they did not even have to pay attention. Not a single presentation furthered our knowledge or improved my skills as an Engineer in any way.

I do want to take this time to say that Kerim Kaylan is the greatest IA I have every had. He had a very clear understanding of the material and took his own time to reserve rooms and help the class. Much of the class saw him as a great leader and a great resource. If I could I would recommend him to teach he class because he did such a good job during his session. He was ecstatic and enthusiastic about the material when we remained terrified.

Overall this course was terrible and I dont even understand why it is required. All I did was waste my time sitting in a class when this class could be substituted with a design class that would allow us to learn more about the applications in biomedical Engineering. I would reccomend students change their major if this is what Biomedical Engineering is going to be

Student 13
The material covered in this class seemed irrelevant to most BME careers. It may be applicable for grad students in BME but not for undergrads. It should have focused more on the biology and less on deriving equations for irrelevant concepts. The teachers taught the class decently but the material itself and the book were not designed well to increase my relevant knowledge toward a BME degree.

Student 14
This has been one of the worst BME classes I have taken. I do not see the point in the material and the "teaching" component in class was basically reading out of the book. I could read along using my book with what the instructor was writing and saying

Student 15
The course was good because it exposed me to a way of thinking that I did not know before. I now feel like I can look at something in biology and I would have a better idea of how to model it physically.

However, I think the exams did a poor job of testing us. Often we had to memorize equations in order to answer exam questions. There were also some questions on exam 2 which were simply dimensional analysis.

I think the most important thing to learn from the course is that it is possible (although very difficult) to model biological processes with simple things like beams, springs, etc. We should learn how the authors of the book came up with some of the equations to describe things like DNA bending instead of learning the math they used to simplify the equation.

Student 16
NA

Student 17
NA

Student 18
Overall I did not like this class. There were some topics in the class that I did enjoy, but for the most part I felt as though the class was largely unnecessary for the biomechanical concentration. Much of the material covered in the class was covered in either basic biology or in MCDB 310 (which I took) or Biochem 415 (which many of my friends took). The material that was unique to this class, ie not covered in the previously mention bio classes, felt mostly redundant in the course because it was repeated many times, but never really built upon (such as the Boltzmann Equation, Boltzmann Factor, and how to determine the probability of a particular state)

Student 19
Probably the worst class I have taken here at the University of Michigan. I will be sorely dissappointed in the department if Takayama teaches this course again. There is a reason why more than half of the class doesnt show up to lecture.

Student 20

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Half of the instruction was acceptable, half was poor. over 75% of the material I had learned in other courses, and I felt the course was bordering on a waste of time.

Student 21

I hope this is the only class I will ever be able to say this for: I can honestly say that I will take nothing away from this course. I have memorized equations for the exams and know nothing about them or how they relate to biology.

No connections were drawn between the biology and the math. The professors did not seem all that interested in the information either as neither of them showed up for the final student presentations, a project they assigned us and seemed interested in. They also do not show up for the exams, I have come to question whether or not they even know what they are teaching us.

The professors also did not hold office hours until multiple student complaints. The office hours that were offered were used to give answers to the homework that none of us could do on our own. Rings of students copying off of each other were made...this class may have actually promoted blatant disregard of the honor code as blindly copying from office hours was a common theme.

I did enjoy this class as I made lots of friends, I am not bitter, misery loves company.

Student 22

NA

Student 23

It is a very dry subject and was not translated well to the student body.

Student 24

The course tried to teach way too much in the semester. This got us off on the wrong foot with the professors and made it difficult for us to give the class a chance.

The material of the class was relatively interesting but it was taught in a way that didn't allow us to connect with the material let alone try to learn it. The professors gravely underestimated the value of creating their own slides. This is extremely important not just because it shows an honest effort on their end but it creates better flow when they teach. Dr. Deng recognized this later on and made adjustments accordingly.

The homework is the same story, it seemed unrealistic and was above what we were taught. This was exemplified by the high attendance of office hours, and in some cases the attendance in office hours was higher than in lecture.

It cannot be stressed enough that the professors tried to teach way too much in a short period of time. Dr. Deng made an honest effort in trying to slow the pace down and work step-by-step in the material she presented.

Student 25

The material and the book is actually quite interesting. Some of the exam questions needs to be modified. It's unfair to ask students to memorize all the equations from the book.

Student 26

Overall Course Comments:
This was a course in quantum mechanics with some biological application. This course did not improve my knowledge of cellular biology. As a biomedical engineer i think a more classical course in cellular biology with some quantitative aspects. I think the amount of quantitative part as BME 419 would be good.

Shuichi Takayama Instruction:
I would recommend that Dr. Takayama never teach this course again. He did not hold office hours, was not able to answer students questions, did not care about the course or the instruction of the students. It was obvious that he had not looked over the lecture note he was teaching before hand. On multiple occasion he had to stall to figure out what he was teaching. On one occasion while going over electrostatics, he was adamant that charge was a vector. As we all know charge is not a vector. When asked about this he said refer to the book and would not take the time to figure out what was wrong as this confused the majority of the class. After referring to the book, what he was calling charge was the unit vector in the direction of the charge. This is only one of many example when he did not completely understand what he was teaching.

Student 27

very poor.

Student 28

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Not sure if I learned anything during this course.

Student 29
NA

Student 30
I know students will complain about this course, but I must say that I enjoyed it. I loved the content. Such cool material! I hope this course and this content continues.

However, I am unilaterally against the powerpoint lecture format. Sitting still while watching slide after slide go by puts me consistently to sleep--I don't even notice when I fall asleep! I just wake up and realize that I had fallen asleep!

If you choose to continue with this format, please be sure to ask questions throughout the lecture, take lots of breaks to have students work through ideas or concepts or get up and walk around. Surely you, dear instructor, find it difficult at conferences to pay attention to presentation after powerpoint presentation.

The instructor may say, "well, I ask for questions and nobody speaks up." In my experience, this is for two reasons. Either the students don't understand anything that has been said and are embarrassed to ask what may be viewed as a simple or stupid question (IE, "So, we're talking about membranes?" or, "what was that about on the first slide?") or, they have been lulled into a thoughtless stupor by the slides and can't think of anything to say in the 15 seconds of silence they have to pose a question.

Thanks for a good year. I wish you the best of luck as you improve this course. The content is great.

Student 31
This class should not be a part of the required BME curriculum. The BME department would be better served to replace this class with another, more established cell biology class, or a statistics or programming class - something more practical.

Student 32
I was extraordinarily disappointed in the quality of instruction in the class. It was terribly organized. The material was haphazardly presented and the entire class was confused the entire duration of the semester. HIGHLY DISAPPOINTED. I WOULD NEVER TAKE FROM TAKAYAMA OR DENG AGAIN. And granted, I may get an A in the class. It's not the grade that concerns me; it is the inability of the instructors to teach.

Student 33
NA

Student 34
NA

Student 35
The instruction of the course by the professors could improve, especially with emphasizing the main and most important information that we should know. The information in lectures could flow better and students could learn better if the material was taught slower, most likely.

Student 36
This course was often confusing and disorganized. The expectations of us as students were never clear and what information we were required to know was never very clear. Many lectures consisted of the professors writing and solving equations very quickly without making sure the students understood what was being written. The homework assignments often were unclear and confusing. Many of the homework problems were copied from the textbook and changed slightly, but it seemed like they were not double checked in order to make sure they were still clear. Kerim Kaylan was an excellent IA and worked hard to help students understand the material.

Student 37
Sometimes it was obvious that Dr. Takayama had not looked at his notes since the last time he taught the course.

Student 38
NA

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Student 39
NA

Student 40
This course was beyond useless in any conveivable way, either practically or theoretically. If I wanted to be a physical cell biologist, it would have been useful; for any other applications, the course was a colossal waste of time, energy and effort on my part. The professors (Deng and Takayama) are and were horrible at teaching the material: for the most part, they simply read from the book, word for word. In making up for the professors short comings, Kerim and Byoung should receive a promotion and recognition of the highest order.

I would NOT recommend this class or either professor under any forseeable situation, with the qualification that this class would be very useful if I intended to have the same job that Professor Takayama currently has.

Student 41
The course was too math-intensive and I feel that I learned very little about cell biology, more about manipulating mathematical models.

Student 42
I think this course has the possibility of being very helpful because of the advanced mathematics used in the material. However, I do not think that the portion of the class taught by Professor Takayama was well organized or taught. Dr. Takayama did not explain difficult concepts clearly and just assumed that the class knew subjects that were not prerequisites. Dr. Deng did a much better job of slowing the course material down in order to provide a better understanding to the difficult subjects that were being taught.

Student 43
Prof. Takayama clearly had no idea how to teach this course. he did not know the material well enough to explain to the students. he put down the math from the textbook on his slides and expect students to understand his notes. He did not have office hour nor appointments. his lectures were so bad that less than 1/4 of the students would actually attend the class, and we did not learn anything from him. when students ask him questions in class, he would tell us to read the book because the answer is in the book. He did not seem to care about the class at all, and he should not teach this class at all. the exam he wrote was too hard so they have to grade it very loosely. the homework was too hard to understand let along solving it by ourselves. one time, more people (about 50+ people) show up to IA's office hour than his actual lecture because no one knew how to do the homework. the IA practically held a lecture during his office hour. I personally think that IA should not have the responsibility to teach students all the materials we need to know for a class. also, it is very unreasonable to make us memorize more than 20 formulas for an exam because we cannot have a note sheet to take with us. the amount of material we have to cover is too much and we ended up doing just straight up memorizing all the formulas without even knowing what they mean. also, after the first evaluation, Prof. Takayama did not change his teaching style at all. I had not learned a single concept from him in this semester. this is the most terrible class I have ever attend here.
Thankfully the IA and GSI are very helpful. the IA is the best I have ever had and probably the smartest. the GSI is willing to help too. they are the only reason I can finish my homework. their office hour are helpful. Prof.Deng is much better. she knows the materials and wants students to learn the material. she also takes in advise about how we should slow down the lecture so we can actually understand the principle. she also does not hold regular office hour, but she is willing to meet with students by appointments.

Student 44
NA

Student 45
The topics were interesting. However, use of class time can be improved if lecture notes on derivations were already posted on the slides before lecture so that more time can be used to explain logic rather than copy notes. Having all the equations or derivations on the slides will save time and better help understanding and be easier to refer to. Also, the homework problems refer to obscure phenonmenon that are not very intuitive and require special knowledge that only seems to make sense in office hour. Is there any way to write clearer hw problems or pick problems more relevant to biology concepts convered in class?

Student 46
Professor Takayama did not appear to be prepared for class on most days. He asked the class what the book said several times throughout the course, indicating he did not have a clear understanding of the material.

Student 47
NA

Student 48
This course doesn't teach us how to apply what is taught to design

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Student 49
This was one of the most confusing and difficult courses I have ever taken. I would not recommend this course to anyone, and it should either be removed from the BME undergraduate requirements, or changed dramatically.

Student 50
1. Professor Takayama would not meet with students outside of class.
2. Professor Takayama did not seem to care about the student's performance or about the class. He told the class that the first midterm exam couldn't possibly be graded fairly.
3. Professor Takayama only attended one of three days of student paper presentations, and during that time he spent part of the time sending emails and the other part sleeping.

The class has yet to prove it's point to me. I have yet to understand the big picture of the class because the course was full of derivations.

* The quartiles are calculated from Winter 2012 data. The university-wide quartiles are based on all UM classes in which an item was used. The school/college quartiles in this report are based on upper division classes with an enrollment of 75 to 9999 students in College of Engineering.
** SA - Strongly Agree, A - Agree, N - Neutral, D - Disagree, SD - Strongly Disagree, NA - Not Applicable.