PHYS 1425-001 **General Physics I** - Spring 2010

CGAS (14569)

INSTRUCTORS: **Fowler, Michael (mf1i)** - Kargiantoulakis, Emmanouil (ek4px)

Respondents: 66 / Enrollment: 102

~ QUESTIONS AND DETAILS ~	*~ ANSWER MATRICES ~*
1. How much did the demos, videos, and classroom activities, if applicable, contribute to your understanding of the subject matter? ~ Question Type: Short Answer ~ *contributed by Department of Physics*	Results for PHYS-1425-001 Total: 63 Individual Answers: *See below for Individual Results*

demos good, videos good, lectures a bit hard to follow

While many of the demonstrations were interesting and some rather helpful, in general they did not contribute significantly to my understanding the subject matter. Occasionally a demo would reveal an important principle, but my knowledge of topic was never improved dramatically simply by watching a demonstration. Also, the professor was not always prepared to use execute the demonstrations, which made some of them take considerable amounts of class time.

the demos were often very helpful for my understanding because many of the concepts were hard to grasp just knowing formulas and variables, so seeing how concepts actually worked in real life application was valuable

The demos were very helpful in understanding subject matter.

They helped a good bit.

I thought that the demonstrations were very effective in helping me visualize the principles and theories

Classroom lab demonstration actually helps a lot.

Contributed a lot!

They were great at helping us visualize difficult concepts especially related to angular momentum. The demos helped keep class interesting.

Most of the demos were just kind of a cool way of reinforcing the concepts; I don't think I really learned a whole lot more as a result of them though, they were just kind of cool.

A lot since physical application is better because I am a very visual learner

The demonstrations shown in class contributed a great deal in understanding the various concepts of general physics.

They greatly helped me understand the course material.

The demos, videos, and classroom activities really helped me understand the subject matter well. These provided me a better understanding because they were real-life examples that would illustrate what really would take place.

Most of the demos and other classroom activities were helpful in understanding the subject matter.

Most helped, the bicycle demos were extremely confusing. The videos in class were beneficial. I also liked the Java applications that were presented in lecture.

a lot

Demos and clicker questions helped alot

very well

Demos were very cool but didn't really help me understand the material any better

I loved the demos. It helped me wake up. Especially because it was a 9am class.

quite a lot

A great deal. Proffessor Fowlers use of demonstrations greatly aided me in understanding the course material

Very much so. I loved the demos!

A lot.

Very much.

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~
	Demos and videos really helped understanding the subject matter, especially the theory behind those natural things that I didn't notice.
	A fair amount, kept me interested and involved with what was being lectured on and helped me understand some subjects better.
	somewhat
	The demos more than anything else contributed the most to my understanding of the subject matter.
	Very interesting, totally kept me awake during class
	very much so, they were entertaining and helpful
	Those were the essential part of lecture in my mind, they grabbed my attention to the concepts, since when they were in a demo were sometimes alarming.
	Significantly.
	Most of the demos were extremely helpful in demonstrating the subject matter, especially when the outcome was different from what I would've expected it to be. Also, explosions definitely made class exponentially cooler.
	It makes the materials become fascinating and some demos did convince students of certain surprising results. but many demos are not so effective, to be honest.
	They contributed to my understanding somewhat by confirming the theories.
	I like the demos very much overall the videos and demos are very helpful.
	Not so much.
	The demos/videos were very helpful in understanding the concepts and were a nice break from lecture slides.
	They were entertaining so they held my attention.
	They helped somewhat
	Some of the activities reinforced the concepts taught in the course, however others were difficult to see or understand given the nature of the demo and size of the class. Sometimes, the explanations of the demos or activities were difficult to understand, even if the demo succeeded in showing the concept.
	a lot.
	The demos contributed greatly to my understanding of the subject matter.
	a decent amount, I would like more of them and a more in depth explanation of them though
	The demos and video clips help me understand things a lot better because I could actually visualize and make connections.
	Not really.
	Although Prof. Fowler did a fine job of instructing, the lectures were not really beneficial overall toward my understanding of the material, as I was able to gain a sufficient understanding through the text and web resources. The only worthwhile part of the lectures, for me, were such demos, as they improved my understanding of the material.
	The demos were helpful, since they were not only entertaining, but also gave a valuable reference point for remembering concepts.
	Some of them helped, but it was frustrating that many of them didn't work. Overall they were mostly just a welcome distraction from lecture.
	The demos were very entertaining and useful towards understanding the concepts of the course.
	The demos definitely helped me understand the concepts in a more effective manner.
	The demos helped a lot for some of the topics. They helped show the application of some of the material
	The demos helped a lot because it is easier to remember/believe when you actually see things happen.
	Not much.
	They helped clarify several clicker questions.

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~
	The demos were really neat and definitely added to the exciting factor of the early morning class The demo's were not very helpful, especially when my instructor did not successfully complete them. They would have helped, but the teacher constantly messed up on them. Also, he did not explain the demo, so it was useless. They helped in some sense, but I still do not understand some of the rotational demos. Demos were freaking awesome! I loved the videos. I feel that they helped a lot, as if I had a demo or video of a specific phenomena, I was better able to remember the theory associated with it.
2. Was the text informative and helpful? ~ Question Type: Short Answer ~ *contributed by Department of Physics*	Results for PHYS-1425-001 Total: 63 Individual Answers: *See below for Individual Results*
	Neutral. yes, though I did not read all of it. it was good to fill in the gaps left from lecture Somewhat, good for equations and sometimes it was able to clear up confusing topics, sometimes hard to fully understand from the text. Yes, I thought the textbook was helpful and did a relatively good job of presenting physics concepts in a clear, understandable manner. The textbook often helped me better understand concepts that were not thoroughly covered in class and provided lots of good examples to help me learn how to use equations and apply concepts. I liked the many diagrams and illustrations in the text, which were usually very clear and helped me pick up on new topics. The text is probably more helpful than going to class. yes, the book has some good examples and good concept questions Somewhat. Somewhat. The text was sometimes hard to understand and a lot of the time the things in the text never showed up on any of the midterm exams. It was okay--the examples were really confusing. Very Not really... For the most part It was too informative making it very confusing. The text was fairly informative. The examples are very helpful but sometimes they aren't clarified enough. Yes! The textbook was rarely used. The textbook examples were the key to my understanding. Yes. Yes. Yes. Yes. Yes, very. Yes, the text was very helpful and informative; could be slightly confusing but most confusing parts were worked out in lecture

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~
	Yes, the textbook was very helpful as it explained the course material effectively.
	Sufficiently. No particular feelings either way since my exposure was all to others texts, as I was unable to purchase a copy for myself.
	Yes, the text was helpful and instructive.
	The textbook saved me on tests. I always need a textbook to read so I can go through concepts at my own pace, so Mr. Giancoli definitely made my life a lot easier. As for the slides, they were always clear and facilitated further understanding of physics. But since we moved through the class so quickly, it almost feels like a moot point how good the slides are...
	somewhat
	The text was not very helpful, and seemed to be my last resort.
	yes, the power points were helpful on top of the aid with the book
	Yes, the text was informative and helpful because it provided many examples for us to work through and solve in order to understand the material.
	Yes, but there should have been assigned reading.
	Reading the actual text wasn't very helpful but the example problems were very helpful.
	I really like the textbook for this course and I feel that it does a good job of teaching the concepts in a way that you can understand it.
	Most of the time
	You mean the book? Rarely opened it
	The text was informative and helpful, and reading was defintely necessary to pass the tests.
	It was helpful for homework, but what the instructor talked abput in class was not related coherently to the text.
	The text wasn't too difficult to read and helped me to understand topics.
	sometimes, I didnt use it too much.
	no not really
	Somewhat; it was too heavy on examples and did not provide enough discussion on topics. Some topics seemed to be covered by a single example only, and I found web resources to be, at times, more useful.
	yes
	yes
	yes
	yes
	Yes, powerpoints made the class easy to follow and looked professional
	Sometimes.
	yes, the textbook was more helpful that the lectures themselves. It ironically was more succinct and meaningful to me than the lecture slides.
	Very little. Its formulas are confusing and not listed in an easy-to-use manner (many derivations, few formulas that prove ultimately useful).
	Yes. The exercises and problems were quite challenging and helped in understanding the topic.
	Yes, I've worked with this text before and it does a pretty good job of explaining everything.
	not really, just the bolded equations were helpful
	Yes
	Yes
	Yes
	Only occasionally.

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~

I did not find the textbook particularly helpful in explaining the concepts. The examples given in the text as well as the "Student Study Guide" proved to be more useful in understanding the course material than the actual descriptions in the text.

The book was okay, sometimes it was very confusing but professor Fowler's slides were terrible, way too long (paragraphs) and very hard notation to discern

Yes, the text was helpful and included many useful examples.

The textbook examples were in some cases too basic. A lot of the homework questions were hard to do because the examples in the book were not as difficult.

Yes.

3. How many class and/or lab sessions did you attend during the semester (choose the closest answer)?

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Question Type: Multiple Choice

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contributed by Department of Physics

Results for PHYS-1425-001

Total	less than 1/8 of the sessions (NA)	about 1/4 of the sessions (NA)	about 1/2 of the sessions (NA)	about 3/4 of the sessions (NA)	nearly all of the sessions (NA)
66	1 (1.52%)	0 (0.00%)	2 (3.03%)	11 (16.67%)	52 (78.79%)

Results for Department of Physics - Spring, 2010

Total	less than 1/8 of the sessions (NA)	about 1/4 of the sessions (NA)	about 1/2 of the sessions (NA)	about 3/4 of the sessions (NA)	nearly all of the sessions (NA)
2229	31 (1.39%)	31 (1.39%)	54 (2.42%)	198 (8.88%)	1915 (85.91%)

4. The average number of hours per week I spent outside of class preparing for this course was:

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Question Type: Multiple Choice

~

contributed by Office of the Provost

Results for PHYS-1425-001

Total	Less than 1 (NA)	1 - 3 (NA)	4 - 6 (NA)	7 - 9 (NA)	10 or more (NA)
66	3 (4.55%)	30 (45.45%)	31 (46.97%)	2 (3.03%)	0 (0.00%)

Results for Department of Physics - Spring, 2010

Total	Less than 1 (NA)	1 - 3 (NA)	4 - 6 (NA)	7 - 9 (NA)	10 or more (NA)
2231	309 (13.85%)	1021 (45.76%)	622 (27.88%)	200 (8.96%)	79 (3.54%)

5. I learned a great deal in this course.

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Question Type: Likert

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contributed by Office of the Provost

Results for PHYS-1425-001

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
66	3.71	0.87	10 (15.15%)	34 (51.52%)	16 (24.24%)	5 (7.58%)	1 (1.52%)

Results for Department of Physics - Spring, 2010

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
2226	3.85	0.92	501 (22.51%)	1129 (50.72%)	412 (18.51%)	130 (5.84%)	54 (2.43%)

6. Overall, this was a worthwhile course.

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Question Type: Likert

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contributed by Office of the Provost

Results for PHYS-1425-001

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
66	3.58	0.93	8 (12.12%)	33 (50.00%)	15 (22.73%)	9 (13.64%)	1 (1.52%)

Results for Department of Physics - Spring, 2010

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
2225	3.79	0.98	521 (23.42%)	1032 (46.38%)	433 (19.46%)	171 (7.69%)	68 (3.06%)

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~

7. The course's goals and requirements were defined and adhered to by the instructor.

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Question Type: Likert

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contributed by Office of the Provost

Results for PHYS-1425-001, Fowler, Michael

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
66	4.09	0.74	17 (25.76%)	41 (62.12%)	6 (9.09%)	1 (1.52%)	1 (1.52%)

Results for Department of Physics - Spring, 2010

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
2500	4.18	0.83	995 (39.80%)	1072 (42.88%)	354 (14.16%)	52 (2.08%)	27 (1.08%)

8. The instructor was approachable and made himself/herself available to students outside the classroom.

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Question Type: Likert

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contributed by Office of the Provost

Results for PHYS-1425-001, Fowler, Michael

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
66	3.67	0.75	8 (12.12%)	30 (45.45%)	27 (40.91%)	0 (0.00%)	1 (1.52%)

Results for Department of Physics - Spring, 2010

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
2497	4.09	0.93	1023 (40.97%)	811 (32.48%)	556 (22.27%)	77 (3.08%)	30 (1.20%)

9. Overall, the instructor was an effective teacher.

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Question Type: Likert

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contributed by Office of the Provost

Results for PHYS-1425-001, Fowler, Michael

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
66	3.64	1.05	13 (19.70%)	30 (45.45%)	10 (15.15%)	12 (18.18%)	1 (1.52%)

Results for Department of Physics - Spring, 2010

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
2500	3.94	1.04	897 (35.88%)	878 (35.12%)	475 (19.00%)	180 (7.20%)	70 (2.80%)

10. Please make any overall comments or observations about this course:

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Question Type: Short Answer

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contributed by Office of the Provost

Results for PHYS-1425-001

Total	Individual Answers
33	*See below for Individual Results*

I feel that too much information was put into one course, so it was difficult to master the material.

Solutions to the problems at the back of the textbook can be provided for students who look to these problems for extra practice (as some topics like angular momentum can be very difficult to grasp). Mr Fowler also does a great job in keeping 9am lectures interesting. No-laptop policy is fair.

None

Emmanouil is a very effective TA and resource to have.

Fowler just had his back to the class many times and just read his powerpoint slides which were more like long paragraphs. He knew what he was talking about but did not effectively relay the information to his students. The clicker questions were extremely hard and unfair. The syllabus said if 65% of the class was incorrect, the question would not be counted. But really there were only a handful of times when 65% of the class actually got the question right. The test format is also very hard to succeed with each question being about 7 percentage points and no partial credit.

Professor Fowler can make more analogies or examples related to certain laws or theories talked in class which can help us know more about how the physics knowledge applied in life and solve practical problems (including those decribed in homework).

Michael Fowler was one of my favorite lecturers this semester, and the fact that I did not attend every last one of his lectures should not reflect on him, but on the early lecture time, and my current condition which requires me to sleep far longer than I normally would.

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~
	Overall, I enjoyed learning Physics and found the subject matter to be challenging and interesting. The textbook was very helpful played an integral role in helping me understand the topics being covered. I was not particulary impressed with lectures, however. The professor often seemed to be unprepared for class, both in terms of being able to execute demonstrations and also being able to present slides clearly. He frequently read directly from the PowerPoints and often went through complex derivations of formulas and concepts so quickly that they were nearly impossible to understand. This problem was evident because too often I would hear the professor say aloud something along the lines of, "I hope that's clear to everyone," or "I probably could have said that more clearly," or "Perhaps I should rewrite that slide." I was not impressed by comments such as these and in general felt that information was covered too quickly and not thoroughly enough to be readily understandable by students just introduced to a new topic. Many times that professor tried to explain intricate mathematical relationships by simply describing them rather than writing them down, which made it difficult to follow what was going on. I also did not like the way that the professor would ask clicker questions about a topic that had been covered just a minute or two before on a previous slide. It seemed unreasonable for students to be expected to always follow along perfectly with lectures and be able to absorb content immediately. The professor also did not always take time to explain answers to clicker questions, even the ones on which students did poorly. Overall, I felt that the class could have been significantly improved by a restructuring of the lectures and a stronger focus on presenting the details of concepts rather than the details of the mathematical relationships that describe them (which are not always intuitive). I liked that the clicker questions functioned as the participation grade. When I was really tired it was a good motivator to get up and come to class. Otherwise I might have been tempted to skip class a few times just because it was hard to get up for a 9am class. The pace of this class is much too fast. There's simply too much material to cover, in too short a time, so the entire learning process suffered. I also fooled myself into thinking the class would be an easy A in the first few months since all we focused on was stuff like kinematics, which most people did in high school. I was definitely wrong about that. I wish we had spent less time on things like Newton's Laws and kinematics, and more time on the complicated topics, like angular motion, hydrodynamics, thermodynamics, etc. I also felt like the WebAssign was perhaps a little too difficult. Then again, I never had time to go to officer hours... But, to his credit, Michael Fowler is a very entertaining teacher, and even though I could feel his judgment every time I got a clicker question wrong, he was definitely a driving force in me getting my patootie out of bed for a class at 9 in the morning. don't have any Slightly interesting, Fowler is difficult to understand. I think there were a few too many digressions that took away from the ability to have time to further explain concepts I often felt that the lecture slides were simply various formulas thrown up on the screen with little connection to how they would be used in solving problems such as those on WebAssign. I guess the lecture slides got most of the conceptual ideas across, but I literally had no idea how to go about solving the majority of the problems, only given the lecture slides. Not sure how this can be changed, but the textbook was the most valuable/informative part of the class even more demos! I liked using WebAssign. Make the first three exams combined worth more than the last exam in total Put more questions on the exams/have a longer period with which to do the exams (15 questions is not enough, missing more than 2 is already an automatic low B) I had already taken this course in high school with a very good teacher. When I took it here however, I thought that the professor did a terrible job and made everything so much more confusing than it needed to be. This has without a doubt been the worst class I have ever taken. This course was very worthwhile. Professor Fowler is very entertaining while still sticking to course material. Fowler is absolutely entertaining to listen to. He jokes around and is a lot of fun. however, he is not an effective instructor. Or maybe he is, and is forced to not teach how to actually do Physics. His powerpoints were all made by him and were very effective teaching tools, but none of the concepts explained in class were really helpful in preparing for the exams or the homework. Or maybe they just werent emphasized enough. If there are more sample questions discussed in class instead of all the abstract concepts, the material may make more sense. I loved Emmanouil, he's the man and also Fowler. The TA, Emmanouil, was AMAZING! All the students loved him, he helped a lot with 1 on 1 help and explaining things. Big problem with the course, too much in one semester, most students do NOT learn, they just use Cramster for the HW assignments. Not enough problem solving. Clicker question policy is not too great, I missed class for medical appointments but went to office hours, I put in the same amount of effort but get points taken off? Not too fair. More focus should be put on problem solving and applications. Fowler's emphasis on theory is GREAT, however, there is not enough time for both. Either make more time or take out material. easy course

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~
	I wish you would use a different textbook. Also, torque, angular momentum, and moments of inertia are all VERY difficult concepts, and I wish the class would spend even more time on them. I am still hazy on these topics. None. It was a worthwhile course and the instructor was really good! The course was not very easy to understand due in part to a difficult series of topics, but also due to a poor textbook and unclear lecturing at times. I would like for there to be a greater focus on solving numerical problems during class in order to show concepts rather than leaving such work for students to go through on their own. better explanations of clicker questions are needed The lectures seemed to teach general conceptual material and there were little examples with actual data reviewed during class, despite the tests including and decent amount of both types of questions. The General Physics course was a great introductory course for learning how to apply physics to engineering. I attended every lecture and still felt lost when it came to homework and tests. I feel that the material could have been presented better in lecture. Physics 1429 is just a very confusing class. During tests, there was way too much commotion--it was very cluttered when we were handing in scantrons and exam booklets. The professors were talking in the front of the room through the duration of the exams, which does not fair well for concentration. Also, we always started our tests late and ended them on the dot at 9:50, and threats to take off points began at 9:48 or so. These last few minutes count a lot on tests, especially after starting late, so the sense of panic and being rushed at the end of the test is not ideal for us.