

PY 105 (A1): Elementary Physics 1

Summer20 | Valentin Voroshilov

138 | Students Enrolled
115 | Students Responded
83.33% | Response Rate

Quantitative

<i>Please answer the following questions using the given scale.</i>	N/A	1 - Poor	2	3	4	5 - Superior	N	DNA	SD	M
The extent to which you found the class intellectually challenging	0.87% (1)	0.87% (1)	1.74% (2)	20% (23)	46.09% (53)	30.43% (35)	115	0	0.81	4.04
The extent that assignments furthered your understanding of course content	0.87% (1)	0% (0)	1.74% (2)	20% (23)	32.17% (37)	45.22% (52)	115	0	0.82	4.22
The extent that the class normally met the required number of hours	0.87% (1)	0.87% (1)	0.87% (1)	11.3% (13)	38.26% (44)	47.83% (55)	115	0	0.78	4.32
I found the textbook/cases/course materials	3.48% (4)	1.74% (2)	7.83% (9)	26.96% (31)	33.04% (38)	26.96% (31)	115	0	1	3.78
The extent to which I would recommend this course to others	0.87% (1)	6.09% (7)	5.22% (6)	25.22% (29)	29.57% (34)	33.04% (38)	115	0	1.14	3.79
I would rate the course overall as	0.87% (1)	1.74% (2)	5.22% (6)	20.87% (24)	47.83% (55)	23.48% (27)	115	0	0.89	3.87
<i>Please answer the following questions using the given scale.</i>	N/A	1 - Poor	2	3	4	5 - Superior	N	DNA	SD	M
The instructor's ability to present material is	0.87% (1)	1.74% (2)	3.48% (4)	22.61% (26)	44.35% (51)	26.96% (31)	115	0	0.89	3.92
I would rate the instructor's enthusiasm as	0.87% (1)	0% (0)	3.48% (4)	14.78% (17)	23.48% (27)	57.39% (66)	115	0	0.86	4.36
The instructor's ability to encourage questions/discussion is	0.87% (1)	5.22% (6)	4.35% (5)	15.65% (18)	39.13% (45)	34.78% (40)	115	0	1.07	3.95
The instructor's mastery of the course materials is	0.87% (1)	0% (0)	0% (0)	5.22% (6)	16.52% (19)	77.39% (89)	115	0	0.55	4.73
The extent to which the instructor's grading criteria are clear and fair	0.87% (1)	1.74% (2)	3.48% (4)	11.3% (13)	28.7% (33)	53.91% (62)	115	0	0.93	4.31
The extent to which the instructor returned assignments in a timely manner	0.87% (1)	0% (0)	0% (0)	3.48% (4)	13.04% (15)	82.61% (95)	115	0	0.48	4.8
The instructor's overall rating is	0.87% (1)	0.87% (1)	3.48% (4)	10.43% (12)	41.74% (48)	42.61% (49)	115	0	0.84	4.23
	1 - Poor	2	3	4	5 - Superior	N	DNA	SD	M	
How would you rate your Boston University Summer Term experience, overall?	4.39% (5)	7.02% (8)	38.6% (44)	35.09% (40)	14.91% (17)	114	0	0.98	3.49	
	Yes	No (What school do you regularly attend?)	N	DNA	SD	M				
Are you a Boston University student?	88.6% (101)	11.4% (13)	114	0	-	-				
	Yes	No	N	DNA	SD	M				
Are you an international student?	12.28% (14)	87.72% (100)	114	0	-	-				

	C or less	C+ to B-	B, B+	A-, A	N	DNA	SD	M
What grade do you expect to receive in the course/	1.75% (2)	18.42% (21)	19.3% (22)	60.53% (69)	114	0	-	-

Qualitative

Are you a Boston University student? - No (What school do you regularly attend?)

- No (What school do you regularly attend?) Williams College
- No (What school do you regularly attend?) Smith College
- No (What school do you regularly attend?) Davidson College
- No (What school do you regularly attend?) Princeton University
- No (What school do you regularly attend?) Connecticut College
- No (What school do you regularly attend?) Bucknell University
- No (What school do you regularly attend?) Bowdoin College
- No (What school do you regularly attend?) Barnard College
- No (What school do you regularly attend?) Colgate University
- No (What school do you regularly attend?) Cornell University
- No (What school do you regularly attend?) Eckerd College
- No (What school do you regularly attend?) Brown
- No (What school do you regularly attend?) Trinity College

Please comment on the strong points of this instructor's teaching and presentation: -

- Professor V has a strong passion and drive for teaching physics.
- Val does a good job of incorporating experiments with the lessons to provide real-life examples of what we're learning. He also worked hard to make sure the technology worked in a timely and organized fashion.
- Professor V. is extremely passionate about physics allowing for this course to be more interesting than normal. His teaching style and presentations are straightforward, and allow for the material to be mastered as long as you work hard for it. The homework given allows for lessons learned during lecture to be practiced, and gives an ample amount of preparation for the exams. As long as you pay attention and do your homework, you will have success in this course. I loved Professor V. because he was never trying to trick students, and he truly hopes all students can be successful in PY105.
- He incorporated a lot of experiments into his lectures to help better explain certain concepts, and he did his best with remote learning.
- Mr. V is very good at being fair in his assignments. His tests are very straightforward, which is very helpful to us as students, to allow us to best prepare for success on exams.
- There are clear explanations for every single problem we encountered, alongside theoretical background of all derivations and processes studied. The instructor also appears enthusiastic, which is very helpful for courses like physics (easily monotonous with all the math involved)
- Mr.V is enthusiastic. He uses lot's of models and examples to teach. And I like that he gave us a recorded lecture option incase we couldn't always make class during the live lecture time.
- He prepared a lot of demonstrations for the class.
- He is very caring and thorough, tries to be clear with his expectations. We really appreciate how much time and effort he puts into his lectures, demonstrations, and the amount of his own time he puts into answering piazza questions. I have never had a professor who cares enough to answer piazza questions as often as Mr. V so I commend how much effort he puts in
- He's a little bit scary to ask questions to because he makes fun of you but everything else is excellent.
- Professor V is excellent, I have no complaints. He is enthusiastic and caring, as well as extremely knowledgeable.
- He was passionate and available regularly for help.
- Very enthusiastic, very good demonstrations.
- He was very passionate about the course, the content, and our success. His expectations were very clear and he explained what he wanted us to take from lectures very clearly.
- He is really funny without trying too hard. He's definitely one of my favorite personalities of the university professors I've had so far. I feel like every ruling he had regarding our class was fair, sometimes even too nice. I felt this class more than any other I have taken at this school benefitted me. I spent a considerable amount of time preparing for the exams, and wasn't surprised by a single question on them. He really, really cared about the students, even if he didn't express it explicitly. He came off cold at first, especially in the responses he'd give to students on Piazza who were not doing well in the class. It was in his actions that I really noticed he cared, like spending days regrading exams after there were discrepancies, or changing the format of labs due to technical difficulties on the student's parts. A teacher who didn't care wouldn't have changed those things.
- The professor is very knowledgeable and enthusiastic about physics.
- Mr. V did a good job providing relevant and interesting experimental examples in class that provided a visual representation of the material we were learning. In addition, with the transition to online teaching, Mr. V was very clear of what he expected of his students in that this class would still run normally. He was comfortable with the technology which made everything easier on our end as students. He was able to adapt quickly when things went wrong such as Echo360 shutting down, etc.
- Really enthusiastic and a great teacher.
- Dr. V is a very passionate instructor. His presentations are straightforward and cover a lot of problems. The questions are engaging and the experiments are interesting.
- Lots of great demonstrations
- Great energy, the lecture is really easy to understand.
- He is very knowledgeable and comfortable teaching the course, his slides are good
- very smart and funny teacher
- I found that Professor V. was a fantastic professor to have! In particular, I appreciate that he put time into ensuring the online nature of the course was not a detriment to our lives, particularly as I work outside school. He hardly ever stumbled in the use of technology to provide us with the best in-class experience.
- Mr. V does a great at providing experiments to explain theories, he provides thoughtful questions during the lecture that gets you thinking about the material. The labs are well thoughtout
- He is very enthusiastic about what he teaches, he keeps the class engaged even while in online classes
- I liked the visual demonstrations and also how he would do a practice problem immediately after teaching the material so that we could learn how to apply that material to problems.
- Professor Voroshilov is extremely passionate about the material, and it is evident that he wants all students to succeed in the course. He uses many demonstrations in class to help us better understand.
- Very passionate about Physics and wants all of his students to succeed!
- Funny
- Dr. V is a very good professor who knows how to convey course material in an effective manner. I liked his use of frequent demonstrations in class to make the class more applicable to the real world (especially during this time). I also liked how he would quickly return our exam grades instead of waiting days for them to be returned.
- Professor V is very knowledgeable and passionate about the material
- Dry humor was appreciated, and Prof V was always extremely organized and prompt in returning assignments.

- Mr. V is incredibly professional at all times but also finds time in his lectures to include subtle jokes to keep the students entertained. He genuinely wants us to do well, but will not coddle us. He encourages success but leaves it up to his students to achieve it.
- He teaches well, but doesn't seem to care about how his students learn.
- I think that he is a very good lecturer and clearly is incredibly knowledgeable about physics. He explains things thoroughly and I love how he does a few examples in class after presenting a topic so that we can run through a few problems together before we have to do them alone for homework. I also really enjoyed all of the demonstrations he did during class that helped make the concepts we were learning more concrete and easier to understand. I also really liked that the homeworks were all due the night before the exam--this allowed me to take the time to study and work to master the material and then use the homeworks as a means of testing what I know well/what I need to continue working on before the exam.
- I am very impressed by Dr. V's ability to teach remotely. Physics is supposed to be a hands on class and Dr. V has done his best to simulate that experience. He does amazing demonstrations that clearly present the concepts and has incorporated software that made labs possible. Overall, I find him to be an excellent teacher who takes the time to adjust his teaching style and the tools he uses to make sure his students are learning the core concepts.
- Very enthusiastic and does not rely on feelings. Is very logical
- The homeworks and practice problems were very helpful in preparing for exams.
- Explains concepts very clearly, and I love his sense of humor.
- He's very enthusiastic about the material and tries to make it approachable to the students
- cares about his students, explains things well
- although the voice may sometime blurred but still very good teacher, very kind.
- Very enthused about physics and want his students to succeed
- Mr. V is probably my favorite professor at BU after taking this course. He's able to teach the content very well and very clearly. I find his presentations of the information a little overwhelming for slides that contain a lot of text, but I tend to think that about all professors' slides anyway.
- answers all questions timely, in lecture experiments help with understanding the material
- Great professor, just please practice the way you approach questions, you are a very intelligent person who has mastered physics, but for students who haven't sometimes your answers are a little too high level! Just practice breaking it down a little more
- - demonstrates strong understanding of the material - encourages collaboration with peers during lecture (via zoom breakout rooms)
- Really enjoyed how he implemented humor into every lecture and was constantly answering questions on piazza/offering many office hours to help students. In addition, I truly enjoyed that he offered so many practice problems so we could master the material easier. Overall, this course was one of the best I have taken in college thus far.
- The professor really does care about the students and does his best to help us understand especially with the circumstances
- Very passionate about the material, clearly put in effort to make the course entertaining given the circumstances, great demos
- He is very straightforward and doesn't try to trick you. He presents everything you need to know for the exam and gives clear explanations.
- Instructor is great at showing and teaching the material.
- - very fair grader - homework that professor assigned was very relevant to exam - exams were very fair
- Very clear.
- Explains well, allows us to figure out questions on our own with guidance
- He is very straightforward and does not waste time on teaching the topics. Very fair in grading and returns grades very fast
- You can really tell Mr. V cares about us learning the material and wants us to do well. He made an 8:30 am lecture actually interesting and enjoyable- he always tried to make the course fun and funny which was appreciated and cared more about what the students wanted/thought was working than what he wanted to do which is so different from many other professors/departments at BU. I really appreciated him as a professor and learned a lot from this class coming in as a student with limited physics background.
- -Helpful office hours -Helpful when we solved all the problems out in class
- lectures were clear, exams were fair
- Enthusiastic and fairly clear on examples.
- Amazing instructor!
- enthusiastic and kept it as interesting and engaging as possible given the circumstances
- Knows the material extremely well
- He was a great teacher. gives lots of opportunities for success.
- Dr. V is clearly knowledgeable in the subject and enjoys teaching. His presentations are mostly clear and all objectives are met during the course.
- passionate about the topic at hand
- The professor is very passionate and proficient on using different technologies.
- Very engaging, uses a lot of engaging visuals and examples to demonstrate physics concepts in real life
- He is available for office hours every day of the week, he goes over concepts more than once, he aims to make physics simple.
- The instructor really knows the subject very well and explains the problems as he does them

- He tries to be as fair as he can and does plenty of examples. He makes sure to use the same level of examples that he will test you on
- I can tell your passionate and all the practice problems and demonstrations do help
- Great at presenting material relevant to what we need to know. Fun guy.
- Clearly explains physics concepts, good blend of humor and explanation.
- Professor V encourages students to find answers to questions in his class and questions in life. I found his class intellectually challenging.
- Covers good and relevant examples in lecture which are extremely helpful and necessary to complete the homeworks. Demonstrates key theoretical concepts through demonstrations/experiments accompanied by explanations which help clarify what we are learning.
- He really knows his stuff and is able to communicate it thoroughly to his class.
- Mr. V is very knowledgeable about the material and it is clearly shown.
- good professor, lots of demonstrations for students, puts in a lot of effort to help students, fair grader
- You can tell he is very knowledgeable in this field. He presents the information needed and shows many examples in the form of experiments to physically show us examples which really helped!
- I give him major props. He took a course that is normally in person, and made it online. He allowed student feedback regularly, and often took it under consideration. He made accommodations for students as needed. I would assume that in most cases, students do not complain as much for an in person class, than they did for this online physics course. I'm not sure if it's because he could not see who was complaining, or their names, but in the course forum students often sounded entitled and whiney. The professor was incredibly patient, but stood firm in his beliefs and handled their complaints professionally and diplomatically. I am thoroughly impressed with how he responded to the complaints of the students- in his shoes, I would have gotten very annoyed and impatient; Mr. V did it spectacularly. I give him so much respect for that. Not to mention that I already took physics once 8 years ago, and I did not do well in it at all and didn't feel as though I learned anything yet in Mr. V's course I was able to get to the point where I could help others in the material. I also thoroughly appreciated being able to watch lectures on my own time so I could pause to take thorough notes and google things I didn't quite understand. So great job, Mr. V!
- His teaching style is very clear and interesting. His grading is very fair and the exams are similar to the practice problems and homework, so it's easy to prepare for them. I learned more in this course than any other course at BU.
- The instructor is very concise with his explanations and takes the time to make sure that the information being presented is understood by the students.
- enthusiasm is great and have a great way of presenting examples that are related to the real world
- Very passionate and knowledgeable about the subject, does his best to make materials accessible and engaging. Homework helped a lot and the test were very fair in my opinion.
- His lectures were fun, and I learned a lot of materials.
- Mr. V is very passionate in teaching physics and strongly encourages students to participate. In addition, he is very approachable and is ready to help students when they need help
- the examples helped a lot with understanding concepts
- Everything
- Professor Vorshilov is very enthusiastic about physics and teaching his course. Makes the students more engaged.
- Mr.V is a very funny an engaging lecturer.

Please comment on aspects of this instructor's teaching and presentation that might be improved: -

- While it is taken into account that many materials must be covered within the 2 hour time frame, I wish that the lecture would have included more notes that came from the textbook. Also, the slides sometimes would include so much words and he talks a little bit fast that it's very hard to follow.
- Slides and information were very scattered, for me it would be beneficial to have more lecture slides (or maybe a summary sheet or something) that listed all available equations that we were working with. Sometimes slides are full of so much information it is hard to pick out the important things. Also, I feel that it may just be due to his personality, but he seems very intimidating to reach out to/ask questions.
- Difficult to decipher between his letters such as U and V. It would be best if there was a section at the end or beginning of class for questions.
- NA
- The only improvement I would suggest is eliminating the lab component of the course. It was not helpful since we are online and it was usually just more confusing.
- This is a super easy one to fix assuming the pandemic ends: in person class!
- Some questions aren't answered fully or thoroughly. I would have a hard time keeping up with the questions occasionally because he would skip steps for a math problem. If those questions had every step written down concisely, it would be a lot easier to follow along, but other than that Dr. V is a great professor!
- monotonous sometimes
- Some of Mr. V's lecture notes can be a little disorganized, making them hard to comprehend.
- Maybe more concentration on like one or two key problems per topic in order to drive home the principles instead of going over the principles and then speeding through a ton of problems.
- Moving through the lecture slides a bit slower/cleaning up the presentations, so they present mostly just the key information we need to know.
- N/A
- N/A
- Sometimes doesn't show answer.
- I really had an issue with the fact that you would rarely finish the practice problems in class and would just assume we are able to do the most. Some of us, including myself, haven't taken a math class since high school and the math was probably the hardest part because there was a lot i had to try and remember.
- His handwriting and his slides can be hard to read at times because sometimes they are scattered around the page or he skips steps
- I believe the instructor did the best to his ability during this remote summer course and with the situation of covid-19.
- When we started the course, it felt as though he expected the worst from us. I remember calling during lecture to ask questions, and he asked why I was asking to go back to the last slide (I wanted clarity on the topic). Then, when I went to his office hours to ask a question for the first homework, he assumed I hadn't done any of the other homework questions and made me feel like I was very behind (I had finished the rest of the homework aside from this question). Additionally, he knows physics really well, but I think he forgets that most of us do not. The concepts are not as easy as he presents them to be.
- Not much, really.
- N/A
- needs better engagement and fluidity during lectures
- NA
- Organization
- sometimes it is difficult to read what he has written on powerpoint slides
- Nothing, I thought he taught very well
- Go slower through slides and finish problems that are started in lecture.
- -sometimes it felt like we didnt go through the practice examples in detail so I didn't know how to solve them out at home
- slides are very busy looking making it sometimes hard to follow the material on the board
- N/A
- - sometimes unclear in lecture - this was fixed by the professor because he went and graded the exams again but exam grading at first was subjective because it was done by TFs
- The professor shows how to work example problems but does not work all of them out completely in calculations.
- He speaks a little fast sometimes.
- Would be helpful if he was more gracious/willing to help students through their questions when they don't understand a concept, particularly in Q&A sessions where students are asking in front of the entire class.
- I wish there was extra credit or if he could change the exams from being proctored as it really creates a lot of anxiety and is hard to focus when one person is staring at me intently over a screen; it can be hard to focus. Some of the TFs for this course were all over the place and were quite unhelpful and rude.
- I wished sometimes that he would specifically emphasize which equations and mathematic techniques he was going to use. Many times he would write a bunch of equations and then wouldn't tell us which ones would be valuable for what types of problems, and I personally wish that that would have been more clear.
- - take more time to explain important concepts (especially at the beginning of the course). I felt as though many of the building blocks of this course were rushed through and I didn't have a strong foundation of the material, which made it basically impossible to catch up for the later exams. (I solved every problem presented to us, rewatched lectures, watched kahn academy videos, and worked with peers and I still had a hard time building a foundation)

- Please get some water for your throat clearing! Otherwise GREAT professor
- Moves too quickly (but there is a lot of material to cover in one lecture). for in-class solved problems, doesn't finish the problem, and then skips over the slide with all the work.
- I don't think there's anything that could be improved.
- Sometimes is a little unreasonably harsh on students that answer questions
- I would recommend professor can get some late submission for homeworks
- n/a
- He wastes class time waiting for someone to call in and it ended up delaying us towards the end and rushing new concepts
- Sometimes the pace is a little slow.
- It was very discouraging to call into lecture and ask questions because Mr. V was sometimes dismissive or did not think the question should have been asked. He was not very approachable, which made learning difficult.
- N/A
- I would have loved to have this class in person. The remote learning component made everything more challenging in that looking at a screen during a lab or a demonstration, small things can be missed. I don't think this reflects on Dr. V, but rather the current circumstances.
- Mr. V is very unwilling to compromise/alter his ways in order to help students. I don't know how much of this is him vs. BU's policies, but some rules that appear to be rather arbitrary made things more difficult for students (especially given the unexpected online format of the course).
- He could be much more welcoming to questions, and I would hope that in the future he could be more understanding in realizing that students are taking this class because they don't know any physics. He seems to assume we know some physics but that is not always the case.
- N/A
- I think that he should have been willing to adapt the course accordingly when it became obvious that students were struggling to learn in the remote format.
- I wish in lectures, Professor V would finish practice problems completely instead of stopping before the algebra sometimes. Also, I think he could be more patient with students who called into class to ask questions, sometimes I found he could be short
- I have nothing to comment.
- Not who you want for remote learning in a global pandemic, unaccommodating for different time zones (I had to take an exam at 5am, sign in at 445), unwilling to listen to students and adapt course to online learning
- Professor V tells students not to take notes, and moves so fast through slides with important information on them. When students have called to ask him to go back, he has grilled them on why they want him to go back, what they don't understand, and why they don't understand it. We are all learning new material. We should not be expected to understand everything immediately. He also doesn't complete examples during class but posts the solutions online after. This sounds fine except that his handwriting is almost completely illegible. He uses abbreviations without fully explaining what they stand for, or without leaving enough explanation so that a student who missed out can understand what it is. In addition, he was not even remotely understanding about the fact that we are currently in a pandemic and learning remotely, and refused to restructure the course to adapt to the current situation. I think Professor V is unfit to teach an elementary physics class.
- Some problems were run through too quickly for me to understand the material, but otherwise very good powerpoints!
- n/a
- I sometimes wished we would finish the problems out just a little bit more, even if the remainder was mostly just math.
- Some lectures felt rushed because there was a lot of material to cover in a short amount of time; thankfully lectures were recorded. One challenge was the wording of problems, some questions the wording confused me.
- Honestly I would just suggest that if we had means to contact TF's via chat during class, it might be a more efficient means of getting questions answered in.
- flow of lecture can sometimes get hectic and unclear
- Doesn't seem very approachable for questions
- Could make the lab more helpful in terms of more explanation
- The way he explains concepts could be clearer and the layout of his slides and procedures could also be clearer/neater.
- He could write a bit clearer on slides.
- would be better in person rather than remote.
- n/a
- He is a little intimidating and makes students afraid to participate. We cannot ask any questions without being questioned ourselves. I understand the reasoning behind this but sometimes in a course like physics students can get confused enough to not even know what we are confused about, but Mr. V always expects a very specific question, so there were times I just looked to the internet for answers instead of actually learning from the professor.
- I mean your handwriting is nothing to be envied, but I think as long as I followed along with the work there wasn't too much I was confused about. I really wouldn't change anything. You're doing a great job.
- Sometimes he would go a bit fast.
- Sometimes the slides are quite disorganised, it would be useful to break up the different parts of each problem onto separate slides for clarity. Sometimes goes a little too fast through the problems.
- N/A

- Maybe encourage answers a little bit more if you want people to answer.
- Write bigger and neater on the board please. Also, please finish solving problems on the board because sometimes it is difficult to assume how to finish the rest of the problem
- Having this professor online was almost impossible. For each lecture, we had to have blackboard, zoom, piazza, webassign, webex, and a phone available to participate in this class. I do not understand why we simply could not just use zoom as every other class does. The labs would go over 4 hours every week due to this technical problem and lectures were not efficient. If this course was not online, it could have been better but the professor in general is not the most friendly/approachable person so I am not sure.
- Mr. V has really terrible handwriting and while I know he's in a hurry to get through the material, I found myself giving up on taking notes in class simply because I couldn't understand anything he was writing down. He's also a little severe, I stopped asking questions at some point because the feedback was kind of mean and not always helpful. The other thing is I really wish he would condense his slides, I don't need all the background info I just need what's going to be on the exam. I wish more class time was spent going through examples like what will be on the homework and test carefully step by step so I can see how it's done right, rather than googling it when I ultimately can not figure it out for myself.
- I felt that sometimes the explanations were a little bit too fast. Perhaps this is rather due to the online nature of a course where asking a question or clarification "on the fly" is considerably harder than during an offline course. Either way, that is the one area where I felt slowing down a little bit would have helped me to understand the material better.
- The biggest issue I had was a reliance on too many computer programs. For instance, lectures could've solely been on zoom and accomplished the same goal. Also, the accent sometimes made understanding him hard, but that isn't a big deal.
- Sometimes explanations of certain concepts seemed rushed and he talked too quickly.
- He went rather fast with his derivations of equations and it made it difficult to follow along if we have a weak mathematical background. He emphasized just focusing on physics and I believe he taught physics well, however slowing down to focus on the math would have helped me understand how to do problems better.
- 1. More clarity in finishing problems 2. Show step by step how to complete problems 3. Online physics is almost impossible ... Should not be taught online in the first place

Please comment on the strong points of this course: -

- 1. The homework problems were the most helpful in my understanding
- Overall course is straightforward, but you have to put much effort into it! Homework and practice problems were extremely useful for studying for exams.
- I think the course encompassed many topics and I received a well-rounded learning experience of physics.
- This course was a very straightforward and intimate way to learn physics, despite being held remotely. I was definitely given all the resources I needed to learn the materials
- The course offers plenty of experiments and demonstrations that help settle the math into the context. To me that was extremely helpful as I have poor mathematical skills and require context understand most problems.
- This teacher wants me to learn. He's seems like a good guy, albeit severe and a little harsh at times.
- There were a lot of available office hours which was very helpful.
- Expectations are clear
- homework and exams aligned well. I enjoyed knowing if I complete the homework, I will do well on the exam.
- Professor V was the strong point
- Labs helped with lecture. Exams were fair in difficulty.
- Fast paced but covered the material in enough detail
- I thought the course was structured very well and the professor taught us well.
- I think physics translated nicely to an online format. A lot of the labs involve you looking at something, which could be done by watching a recorded video from the professor. The lectures were really early but I committed to watching them live because I liked having the ability to ask questions on piazza and zoom in real time.
- The homework is very helpful in practicing questions for the exams.
- I like this course much better than the regular semester-long version of this course. I tried to take py105 in fall 2019 and the reverse-setup where students work in groups to teach themselves was chaotic and confusing. The traditional lecture style works much better for introductory material like the material in py105.
- very informative and helpful to understanding physics.
- It gives you a strong foundation in problem solving.
- The homework assignments are very helpful.
- Great content, and great usage of remote teaching software.
- lots of material covered in short amount of time, the way the labs were set up was great
- Excellent structure, manageable material
- The examples, amount of practice problems, the responsiveness of professor.
- The homework was very helpful, and I liked that the test problems were slightly harder homework questions, if you did the homework you would be prepared there is no excuse
- I really liked how flexible watching class was. I was able to work the class around my schedule and never felt like i didn't have time for either the class or other activities.
- The schedule for labs and exams were well planned.
- Homework was very helpful
- I was nervous coming into this course, but the homework and examples in class really prepare you well for exams. If you study each lecture, and understand the homework you can do well.
- Frequent use of class demonstrations, quick grading, many resources for students (including the use of a free textbook), webassign, etc.
- I appreciated how the homework problems correlated to the exam questions. If you mastered the homework problems, you were most likely set for the exam. The exams were difficult, but we had all the resources to succeed.
- Unfortunately, I suspect that the fact that the course was moved online completely changed the experience. I can't speak to any particularly strong points, other than the organization/communication (which was great).
- Many office hours, many different aspects of the course to be able to engage and earn from. Pretty cohesive too, which is quite an accomplishment compared to the other STEM courses I have taken at BU.
- The HW assignments and practice problems were quite helpful.
- I love the website used for homeworks (WebAssign), and Piazza was a really nice way of asking questions and getting quick responses. I also really liked that the homework assignments were all due the night before the exam, and that the lab format was changed after the first week to be more individualized.
- I really enjoyed this class. Learning physics in an accelerated format was not easy but the way in which the class was presented and the availability of TA's and Dr. V made understanding the concepts much easier.
- Textbook is not necessarily required.
- The homeworks and practice problems were very helpful. Access to old exams was also very useful.
- The course allows you to develop a strong understanding of elementary physics. Homework assignments are very useful, and exams are fair.
- the webassign homework is useful for studying for exams
- it didn't seem rushed at all

- very straight forward
- learned a lot about physics during this course
- Literally everything. I was so worried about this course because of people saying it's so difficult, but I didn't find it difficult. It's a lot of work, yes, but the work assigned (and available for practice) is great for helping students prepare for exams. It's not an easy course, but it's an easy course to do well in because of all the resources available to us.
- the labs and homework were very helpful with understanding concepts and applying, tests were fair
- TFs and prof were available often
- - interesting
- Really made me consider the world differently. I took physics in high school but did not have a good experience. Because of this, I was nervous entering in this semester, but I actually found myself fascinated with the topic and part of that was due to the structure of this course.
- Great demos
- Pretty straightforward and a doable course considering the content.
- The course was extremely challenging, but it was easy to keep up with lectures because of the professor.
- - very fair grading - very fair exams
- Covers lots of topics.
- -Office hours -HW was helpful -lots of practice problems
- homework was helpful, lectures were clear
- Homework, labs, and exams all reinforced the material really well.
- Excellent teaching, fair exams, helpful homework
- The ability to watch lectures at any convenient time was helpful, as this is a somewhat early class.
- homework assignments were very helpful
- The class has an excellent environment for study, utilizing technologies to help student learn better.
- It's easy to get the grade that you work for, with a few caveats.
- The homework is very helpful in understanding concepts, and every homework question gives you six submissions. This gave me a chance to learn from my mistakes. Lab was also helpful in better understanding course material
- The lab helped give a better understanding of the material.
- It covered a broad amount of topics and the labs were made easy to follow
- demonstrations
- I like the homework and practice problems
- Impressively adapted to remote learning, participation was still required in lectures, felt much more connected than in other remote courses.
- Lectures
- Very challenging in a good way and intellectually stimulating as it relates many aspects of the world around us. The pace is manageable because there is a balance in the homework questions that we can fill out immediately based on what we cover that day in lecture.
- This course allowed me to think about physics within my daily life.
- I actually learned physics, and that's huge.
- Homework and required lecture viewing make it very educational.
- This course provides an abundance of information and resources through which one can fully absorb and explore subject matter being taught.
- the ability to look at old exams really helped
- Covers the material well and at a decent pace.
- it is very straight forward and introduces many important concepts in physics

Please comment on aspects of this course that might be improved: -

- the lab component often takes a long time
- Could be more accomodating for realities of peoples situations in a virtual environment - for example making international students take the exam at times beyond their control because of no offering of a second exam slot seemed really unfair to me.
- The remote learning labs were very choppy and could be made more smooth.
- do not need a textbook
- Shorter labs.
- Lab component is useless.
- Slower pacing or more problems in the lecture.
- The overall organization and structure of the course.
- Office hours might spend more time elaborating on concepts addressed in the homework problems students ask to go over, instead of just solve the one homework question. Remote labs were supposed to encourage us to work together, but this was not often the case as students just filled out different parts of the lab individually until they were complete.
- Labs
- There was no accommodations for different timezones, it was difficult to take exams at 5am but that's not Prof V's fault.
- More outlines
- Lab In class problems
- due to the online nature, it was a little harder to adjust to the exam taking and just asking for help in general
- There were some things that we had to download that I think was unnecessary and made my computer slower. I think there could be better organization to things. I also believe that the exams were too long for a two hour window. The questions were long meaning there were 7 questions that each had subunits A-E which each required work as well and there were double questions in one question.
- I don't think the exams should be such a huge percentage of our grade. I understood more material through labs and homework, and did well in those parts of the class. I'm not a great test-taker though.
- Those caveats being that it's harder as you approach the A/A- range. In addition, the labs could be shortened in terms of duration, and content.
- Some of the technologies are not needed.
- labs were difficult to complete and follow
- Labs were long and sometimes didn't feel useful.
- Clarity of lecture
- less in class hours a week. Next semester I am taking ph 106 equivalent at a community college and it is significantly less time a week and much cheaper.
- remote labs were a little tedious and unorganized
- -Labs weren't super helpful but got better over course of class
- N/A
- - labs were not relevant
- Unfortunately, this course had to be taken as a remote course which made it difficult for me because I could not attend lectures and office hours in real life.
- Only negative is the online format, but that can't be helped due to COVID.
- very difficult to learn in online environment, particularly difficult to learn from the labs due to their online nature. I found the book to not be that helpful, it was certainly helpful in clearing up some aspects that we didn't fully cover in class, but it also certainly lacked much needed detail and explanations of difficult concepts.. it seemed like both Prof. V and the textbook would skip through things without much explanation.
- There are no major ways I can see the course to be improved; however, I personally found that having class every day was a bit of a learning challenge and made it easier to fall behind especially since many students are working jobs and doing other things over the summer that may make it more difficult to watch a physics lecture super frequently.
- The TFs, exam structure for remote
- - slow down the pace a little or at least make the lessons more clear - the powerpoints were overwhelming
- Charge less money for online courses. We are in a pandemic. This is specifically to the University and the Physics department, not the teaching staff. CHARGE LESS FOR ONLINE COURSES. STUDENTS ARE VERY OBVIOUSLY NOT USING THE SAME RESOURCES AS IN-PERSON CLASSES! great teaching staff ur doing wonderful
- powerpoint slides that are more neater so that they are easy to follow and understand while watching lecture or looking at them after class.
- Again, nothing can be improved
- It feels very rushed, which is expected since its a summer course but I wish that the pace could slow down a little bit
- need to accommodate with different situations
- the lab
- the labs are very lengthy and inconveniently placed for some students. I had a 2 hour lecture + 3.5 hour lab the day before each exam. that's time I could have used to study
- The pace is a little slow.

- Labs and lectures were very long and I felt like material was rushed.
- N/A
- I think that some of the policies could be changed to better help students in different time zones / with not great home environments.
- A more fair and clear grading approach should be outlined. This class seemed to be way more challenging than it should have been. Instructor should have been more accommodating. He seemed to look down upon questions, which was very discouraging. Also, there was absolutely no need for a lab charge in the tuition as students never entered the lab.
- Break up the labs. At times the labs seemed to last too long to the point it was hard to focus on the material, but rather just focus on getting the material finished just to be done with it.
- There should be other opportunities to demonstrate understanding besides exams if it is in an online format.
- I felt the labs were a huge waste of my time. I believe this was mostly just due to them being remote, but I would seriously dread having to sit through lab for three and a half hours every week when I did not feel like I got anything out of it.
- I really don't know how this class could improve given the unusual circumstances.
- N/A
- The labs are very long.
- I did not think the labs helped me that much- if anything at times they confused me and made me feel less confident in the material I was learning.
- n/a
- too hard for someone with little to no expertise in physics, I'm surprised this is elementary level
- The remote aspect of the course needs to improve, its too early, and take time every day.
- The lab was kind of a mess, but to be fair it was online.
- Not an ideal course to be taught remotely.
- I didn't get as much out of lab as I would have liked, but that is to be expected since we weren't able to physically be in lab running experiments on our own.
- The labs were very poorly constructed and should be re-evaluated for next semester. There was always way too much going on, so much so that my internet would often cut out, and often ran over time, which is unfair for a lab that is already 3.5 hours long. My TF was not very helpful. There were times that my team finished an hour early but our TF would come in and say there is one thing that needs to be fixed and then somehow keep up there for the rest of the time. She would never help us when asking for help with mathematics we were barely taught, instead she would make us figure everything out. It felt like she was not there to help, but rather to make sure that we all stayed the full amount of time.
- Personally I think the labs confused me more than they helped. The labs that happened the day before the test really made me uneasy about the work I had just done learning the subject, because it seemed absolutely foreign when I did it in the lab. This is not a physics problem, but someone should invent a software that does what pizza zoom echo 360 and all the other programs we used in this class in one. It was super frustrating having 7 windows open to watch a lecture. Whoever invents that program is going to be very very wealthy.
- N/A
- labs were very long and tough online
- Very unreasonable to make all students from different time zones sit the exams at the same time. We did not have a choice to be a home right now, even though the course was designed to be in Boston.
- Summer remote at an accelerated pace was horrid
- Remote learning makes it difficult to see what is going on from the Echo360 video camera, specifically whatever is on the table because it is tiny and blurry. It is also very difficult learning new material 1-2 days before the exam, and so it would be great if we had a 2 day lull study period so that everything is not so hectic. Material seems a bit skimmed over and sometimes the homework is quite challenging to complete just by attending lecture since it is quite difficult to absorb material by learning online
- I did not learn during lecture I felt like it was all on my own time so making lecture more clear would be helpful. Clearly connecting our homework/test material to lecture would be helpful.
- We wasted so much class time on him waiting for people to call in, and clicking through slides he didn't even expect us to read, please just use class time to go over the kinds of questions we'll see on exams and homework, neatly step-by-step. This class did not need to be this hard.
- Labs often times felt a little bit rushed, indicating there was too much stuff for us to cover, especially with the attrition we had by the end of it (at 3 hour mark most people in my group had issues maintaining attention)
- The course could simplify the number of computer programs it uses. Many of them seemed redundant, especially for lecture (which could function with just zoom). Labs really should only need to use Logger-Pro. The webassign platform is difficult to navigate and isn't the most helpful, and something like TopHat would probably work better.
- I think the labs could have been directed better, and the TFs could have been more helpful and clear in their explanations of concepts.
- Online format of labs were slightly difficult at times, particularly the use of logger pro and tracker. In addition, it may be beneficial and easier to plan out the coursework if all homework and labs on web-assign could be opened from the first day of lecture. In the second half of spring semester labs, the labs were opened and students were able to complete it individually with a few days to a week timeframe to complete.
- I could not be more disappointed in my online Physics 1 experience. Personally, I do NOT think it's Professor Voroshilov's fault. He is trying to teach a very traditional class online and simply put, it is not possible. For example, just to take the class, we are required to use the following technologies: 1) Zoom, 2) Youtube, 3) Webex, 4) Tracker, 5) Screen Recorder, 6) Logger Pro, 7) VLC Player, 8) Piazza, 9) WebAssign, 10), Blackboard, 11) Echo 360. And to make it worse, we have to use: 12) BU Webmail for questions, and 13) Separate email for documents and pictures. In comparison, I took Chemistry 112 with Lab online at Trinity this spring, and we used one application called "Moodle" for everything. Physics 1 and 2 with Labs is a hard enough topic on it's own - but when you add 13 applications, it is truly IMPOSSIBLE and STRESSFUL

learning environment. Especially when the technologies do not work as advertised. This is surely the reason why the grades in the class are so low - and personally I have never struggled in a class like this. Again, it is IMPOSSIBLE to learn.

Are there any courses you would have taken this summer that were not on the schedule? -

- No
- More political science classes.
- NE 101, NE 102
- I would've liked more options for bio electives that did not have a lab.
- no
- No
- No
- no
- higher Spanish courses - such as in the 300 or 400s
- No
- No.
- No
- no
- NO
- no
- n/a
- No
- No.
- No
- No
- no
- No
- No
- no
- No.
- No
- A lot of science and math classes have conflicting schedules. I wanted to take two courses during Summer 1 and there was no way to take both.
- N/A
- No
- no
- art history (2 AH classes were available but not ones that seemed interesting)
- cs320
- N/A
- No I only wanted to take physics so I didn't look at the other courses available
- EMT
- no
- n/a
- No.
- No
- No.
- No
- No
- No.
- no
- No
- More sargent classes during summer 2
- No

- N/A
- N/A
- no?
- There were a few COM courses I would have taken had they been available (CM481, for example).
- N/A
- No
- No
- No
- N/A
- R data science basics
- No
- CS210
- no
- no
- I'm not sure
- N/A
- Higher level spanish classes (400 and above).
- no

Do you have any other comments about your summer experience at Boston University? -

- it was faster than I thought
- not as good as in person classes
- It seems unfair that we have to pay a 200\$ lab fee when we don't get to use any of the materials or do it in person. It should have been waived.
- Tuition was too pricey for not having the resources available as we would if we were on campus. Grades should be able to be C/NR due to the online format because of COVID
- I enjoyed this experience and would recommend it
- no
- for as far as courses online goes during a pandemic, I think this went well.
- I do not believe moving to remote learning justifies lab fees or the same tuition cost.
- I wish it could have been an in-person experience, but that is out of anyone's control.
- N/A
- Wish it was in person
- It was okay
- The time to take the exam could have been made more flexible for those who live in different time zones
- N/A
- It was alright, given that it was at home.
- N/A
- N/A
- While the shift to online courses was handled well, it is not preferable.
- \$200 for remote physics labs was a complete joke
- No
- the costs of courses are too expensive
- No.
- The summer term went by extremely quickly, which did not give a lot of time to fully understand each material as it was presented. Instead, I felt like I had to rush to learn the material and cram a lot of information in a short duration of time, especially for a difficult and challenging course such as physics.
- No.
- It was good, but I think students should receive tuition benefits/a discounted tuition price given the online nature of this course. I think its pretty evident to the entire academic community that an online education does not equate an in-person education.... and therefore you should understand that (especially with our country in such economic turmoil) to require students to pay full price for this course is a callous move on your part.
- I enjoyed it!
- Having exams proctored through zoom is very nerve-wracking especially when it is one TF and you and 4 other students. I know it is done to stop cheating but in general, it is very difficult to focus when someone is so close to the screen watching your every move and some of TFs were brutal and unsympathetic to poor wifi connection and would threaten to disqualify us from the exam when our connection broke which is something out of our control.
- Due to the pandemic, we were unable to attend class in person. As such, I wish the pass/fail policy continued into the summer term.
- charge less for online courses, that's all
- Nothing too remarkable, about just as I expected it to be
- N/A
- ZOOM university
- since it's online it should have been credit no credit but whatever i guess
- paying full tuition for an online education is not justified. this was a much more challenging experience because of the pandemic currently going on, and education does not translate well via technology.
- It was a little more difficult because of the pandemic, I would have preferred an in-person experience.
- N/A
- No
- Thank you!
- It was not as good as I had hoped it would have been.
- Online learning is incredibly challenging. Looking forward to returning to campus for courses.
- I did not really learn any physics, so I kind of wish I could get the money back. Also didn't do well. Net effect upon my life was definitely negative.
- No

- No
- No
- No.
- No
- n/a
- not ba considering everything had to be remote
- NO
- Not that great because online courses are just inferior.
- Remote learning is rather difficult but I am happy BU was able to make accommodations
- Please try and reconsider how you are running summer classes. I know that these courses are being taught as remote classes and not online classes, but this puts a great strain on students.
- I expect to earn an A/A- in this course, but I still think that CR/NC should have been an option for these summer courses.
- It's as good as it can be considering the circumstances.
- N/A
- Professors should have been more accomodating for different time zones.
- No
- Technology is seriously lacking for remote learning and students feel ripped off
- no
- I prefer the culture on campus at BU better during the summer than in spring or fall semesters.
- It has been good so far!
- The BU summer program experience is an incredibly disjointed and extremely difficult learning environment with literally dozens of distractions and zero continuity. In preparation for grad school, I decided to take Physics 1 and 2 at BU this summer. I was especially excited about it - because BU dental school is my #1 choice at the moment - and I thought this would be a great way to test it out. Unfortunately, the reason I'm writing you this note is because I could not be more disappointed in my online Physics 1 experience. Teaching a traditional and extremely difficult course to begin with online is just simply unconventional.