

Clemson University Student Evaluation of Teaching

Evaluation Report for Jens Oberheide teaching PHYS 2450 001 during Fall Semester 2019
 Respondents = 45; Enrolled = 122; Response rate = 37%

University Questions(3686)

G1. The instructor clearly communicated what I was expected to learn.

Type: How much

Not at all					Very much	NR
1	2	3	4	5		
0 (0.00%)	1 (2.22%)	6 (13.33%)	17 (37.78%)	21 (46.67%)	0 (0.00%)	
Focus	Mean	Stdev	Median	Observations		
Class	4.289	0.787	4	45		
Same Level	4.377	0.831	5	1153		
Same Discipline	4.247	0.957	5	1554		

G2. The instructor made the relevance of the course material clear.

Type: How much

Not at all					Very much	NR
1	2	3	4	5		
0 (0.00%)	1 (2.22%)	3 (6.67%)	13 (28.89%)	28 (62.22%)	0 (0.00%)	
Focus	Mean	Stdev	Median	Observations		
Class	4.511	0.727	5	45		
Same Level	4.344	0.871	5	1152		
Same Discipline	4.253	0.973	5	1552		

G3. The course was well organized.

Type: How much

Not at all					Very much	NR
1	2	3	4	5		
0 (0.00%)	2 (4.44%)	3 (6.67%)	14 (31.11%)	26 (57.78%)	0 (0.00%)	
Focus	Mean	Stdev	Median	Observations		
Class	4.422	0.812	5	45		
Same Level	4.401	0.898	5	1150		
Same Discipline	4.283	1.006	5	1550		

G4. There was a positive interaction between the class and the instructor.

Type: How much

Not at all					Very much	NR
1	2	3	4	5		
1 (2.22%)	2 (4.44%)	3 (6.67%)	19 (42.22%)	19 (42.22%)	1 (2.22%)	
Focus	Mean	Stdev	Median	Observations		
Class	4.205	0.930	4	44		
Same Level	4.458	0.792	5	1151		
Same Discipline	4.368	0.909	5	1548		

G5. The instructor's teaching methods helped me understand the course material.

Type: How much

Not at all					Very much	NR
1	2	3	4	5		
2 (4.44%)	2 (4.44%)	13 (28.89%)	15 (33.33%)	13 (28.89%)	0 (0.00%)	
Focus	Mean	Stdev	Median	Observations		
Class	3.778	1.064	4	45		
Same Level	3.981	1.137	4	1148		
Same Discipline	3.824	1.246	4	1546		

G6. The instructor's verbal communication skills helped me understand the course material.

Type: How much

Not at all					Very much	NR
1	2	3	4	5		
0 (0.00%)	7 (15.56%)	12 (26.67%)	6 (13.33%)	20 (44.44%)	0 (0.00%)	
Focus	Mean	Stdev	Median	Observations		
Class	3.867	1.160	4	45		
Same Level	4.067	1.120	4	1148		
Same Discipline	3.841	1.292	4	1545		

G7. The instructor clearly explained what was expected on assignments and tests

Type: How much

Not at all					Very much	NR
1	2	3	4	5		
1 (2.22%)	3 (6.67%)	5 (11.11%)	12 (26.67%)	24 (53.33%)	0 (0.00%)	
Focus	Mean	Stdev	Median	Observations		
Class	4.222	1.042	5	45		
Same Level	4.290	0.953	5	1147		
Same Discipline	4.205	1.024	5	1545		

G8. The instructor kept me informed about my progress in the course.

Type: How much

Not at all					Very much	NR
1	2	3	4	5		
2 (4.44%)	0 (0.00%)	7 (15.56%)	16 (35.56%)	20 (44.44%)	0 (0.00%)	
Focus	Mean	Stdev	Median	Observations		
Class	4.156	0.999	4	45		
Same Level	4.383	0.922	5	1142		
Same Discipline	4.285	1.007	5	1542		

G9. The feedback I received on assignments and tests gave me the opportunity to improve my performance.

Type: How much

Not at all					Very much	NR
1	2	3	4	5		
3 (6.67%)	4 (8.89%)	7 (15.56%)	17 (37.78%)	14 (31.11%)	0 (0.00%)	
Focus	Mean	Stdev	Median	Observations		
Class	3.778	1.185	4	45		
Same Level	3.918	1.227	4	1152		
Same Discipline	3.850	1.259	4	1552		

G10. Overall, the instructor is an effective teacher.

Type: How much

Not at all					Very much	NR
1	2	3	4	5		
0 (0.00%)	6 (13.33%)	4 (8.89%)	15 (33.33%)	20 (44.44%)	0 (0.00%)	
Focus	Mean	Stdev	Median	Observations		
Class	4.089	1.041	4	45		
Same Level	4.264	0.961	5	1148		
Same Discipline	4.099	1.089	4	1549		

G11. The instructor's grading procedures gave a fair evaluation of my understanding of the material.

Type: How much

Not at all					Very much	NR
1	2	3	4	5		
0 (0.00%)	2 (4.44%)	3 (6.67%)	15 (33.33%)	24 (53.33%)	1 (2.22%)	
Focus	Mean	Stdev	Median	Observations		

Class	4.386	0.813	5	44
Same Level	4.275	0.965	5	1147
Same Discipline	4.206	1.020	5	1545

G12. How much work did you put into this course relative to your other courses?

Type: How much

Not at all				Very much	NR
1	2	3	4	5	
1 (2.22%)	5 (11.11%)	12 (26.67%)	17 (37.78%)	10 (22.22%)	0 (0.00%)
Focus	Mean	Stdev	Median	Observations	
Class	3.667	1.022	4	45	
Same Level	4.112	0.957	4	1146	
Same Discipline	4.094	0.978	4	1546	

G13. How difficult was this course for you relative to your other courses?

Type: How much

Not at all				Very much	NR
1	2	3	4	5	
1 (2.22%)	6 (13.33%)	14 (31.11%)	12 (26.67%)	12 (26.67%)	0 (0.00%)
Focus	Mean	Stdev	Median	Observations	
Class	3.622	1.093	4	45	
Same Level	4.037	0.978	4	1147	
Same Discipline	4.013	1.004	4	1545	

G14. To what extent was this course a requirement for you?

Type: How much

Not at all				Very much	NR
1	2	3	4	5	
9 (20.00%)	9 (20.00%)	10 (22.22%)	9 (20.00%)	7 (15.56%)	1 (2.22%)
Focus	Mean	Stdev	Median	Observations	
Class	2.909	1.378	3	44	
Same Level	4.674	0.734	5	1149	
Same Discipline	4.635	0.817	5	1547	

G15. Was this course in your major?

Type: Yes - No

Yes	No	NR
4 (8.89%)	41 (91.11%)	0 (0.00%)

G16. Was this course team-taught?

Type: Yes - No

Yes	No	NR
0 (0.00%)	45 (100.00%)	0 (0.00%)

G17. Please indicate your satisfaction with the availability of the instructor outside the classroom by choosing one response from the scale. In selecting your rating, consider the instructor's availability via established office hours, appointments, and other opportunities for face-to-face interaction as well as via telephone, email, fax and other means.

Type: Satisfaction

Very Dissatisfied				Very Satisfied	NR
1	2	3	4		
0 (0.00%)	1 (2.22%)	13 (28.89%)	31 (68.89%)	0 (0.00%)	
Focus	Mean	Stdev	Median	Observations	
Class	3.667	0.522	4	45	
Same Level	3.546	0.637	4	1152	
Same Discipline	3.514	0.687	4	1554	

G18. Please comment on the strengths of the instructor and the course.

Type: Essay

Student Comments

- #1 - He is very passionate about his subject
- #2 - Overcoming accent so one can understand, heavily explaining topics, positive vibe projected to the class, interesting concept
- #3 - He knows what he is talking about and is well organized. I appreciate that a man who cares about climate change is teaching me about it.
- #5 - Very effective and helpful
- #6 - Very interested in the subject he is teaching. He reviews the material from the previous classes to be a fresh reminder to the students.
- #7 - The power points made it easier to learn.
- #8 - One on one he is a very nice man and really cares about how his students are doing. I did like the course material.
- #9 - good with helping students who need help
- #10 - very good at explaining the relevance of the material to the real world, as well as explaining new concepts. Was able to explain the physics behind phenomena as well.
- #12 - The course gave me in depth idea of how climate change affect human life and what we can do to reduce the effect. The instructor is really nice and helpful.
- #13 - The instructor was extremely helpful and went in to detail when explaining certain topics. Always made sure we had enough information to complete each assignment. Mored than willing to help if we had any questions whether it was after hours or during class.
- #14 - He was very available and was kind enough to answer any questions that I had. He also had a very strong background in climate change.
- #15 - Knew the importance of the material and taught it well.
- #16 - Course - Broad understanding of climate change. Professor - knowledgeable and passionate about the subject
- #18 - The organization and information availability was exceptional for this course.
- #19 - One of the strengths of the instructor and course were the helpful use of visuals during the lectures. There were a lot of diagrams, charts, and graphs used and they really helped me understand the material.
- #20 - Very knowledgeable on the subject.
- #21 - Very clear on what was assigned and what was expected. Always reviewed for tests. Never was unfair.
- #22 - Idk, he explained information very well
- #23 - He clearly related how the material we covered answered our initial questions about climate change. Exposure to the mathematical models was helpful in deepening my understanding of climate science.
- #24 - He knows physics well and is able to explain complex concepts pretty well. The course is relevant to current times and can help the student evaluate their situation.
- #25 - He teaches the difficult content very well and the homework and tests help to establish the understanding.
- #26 - The instructor taught the course well, however I would have liked to have more practice problems for the math that could show up on the tests.
- #27 - His strengths were that he has good powerpoints, he does a very good job of relating the material to our real world issues, does a good job of keeping politics out of the discussion, and gives well backed up opinions on current and future possibilities.
- #28 - The PowerPoints that Professor Oberheide uses to teach are very helpful in class and out of class since they can be accessed on Canvas. He does a good job putting the material into context and describing why climate change is a real issue.
- #29 - He was very good at giving detailed descriptions of the theory portion of the class (i.e., excluding the math). He was great at communicating the importance of the climate change issue. He presented the issue in a way where he gave us the facts, wasn't biased, and allowed us to form our own opinions without pushing a certain way to think.
- #30 - The instructor was very good at explaining everything that he talked about. He was very knowledgeable about the topic, and he showed that he cared about the things that he talked about.
- #31 - The instructor always made sure the class had a thorough understanding of the material taught in the class. The homework assigned to us was relevant to the course, and prepared us well for each of the exams.

- #32 - The material was all clearly communicated and available to be learned, and much of it was geared towards the students particular interests in the subject matter.
- #33 - He was very clearly knowledgeable and passionate about the subject.
- #34 - Was able to communicate well and did a great job of teaching, especially on review days
- #36 - Instructor sticks to what is said. Goes off of the syllabus so the students know what to expect.
- #37 - The slides Dr. Oberheide used were very helpful and everything lined up well with the textbook information.
- #38 - He did a got job of explaining complex concepts by breaking them into parts - like doing one layer of the atmosphere and then adding more for example
- #39 - I like the in class quizzes as it forces you to pay attention and learn.
- #40 - The instructor communicated the material well and thoroughly. He was clearly passionate about physics which was inspiring. I feel like I left the course with a good understanding of global climate change and a confidence to share the knowledge I learned with others.
- #42 - Oberheide is very obviously passionate about what he does and teaches. He comes to class in a positive mood. He is always willing to answer students' questions and even dive into deeper topics when students' who are also very passionate about the course ask.
- #43 - very smart
- #44 - The course is organized and the textbook was a great tool. I enjoyed reading it unlike my other textbooks. The instructor lectures well and presents good slides to help with homework.
- #45 - It was clear Professor Oberheide really knew what he was talking about and really cared about what he was teaching. I appreciate that it seemed like the course material is something he is very passionate about. Also he makes his lectures better by using many figures and images instead of words to help connect what we are learning to real data.

G19. Please comment on the weaknesses of the instructor and the course.

Type: Essay

Student Comments

- #1 - Difficult assignments that usually aren't clearly explained. Difficult to understand and follow
- #2 - Some of the topics covered that related to astrophysics were hard to understand and were briefly covered in class. The mathematical calculations skimmed over.
- #3 - The math from the projector can be hard to understand. I feel like others could benefit from examples being provided and worked out. He did this sometimes, other times not.
- #5 - I would have liked to actually see him work out some of the math problems instead of him just reiterating the equation already given. I learned better when he actually walked us through some of the math.
- #6 - I wish that he did the actual physics problems out on the board rather than have it typed in a powerpoint. It would be easier to see the process by which he finds the answer through steps.
- #7 - No weaknesses
- #8 - I just don't think it is affective lecturing at kids for an hour and a half at 9:30 in the morning. The only thing that kept me up was the in class attendance quiz.
- #9 - not very much explaining on the math, even though there is a lot of math on the homework and exams
- #10 - none that I can think of
- #13 - No weakness
- #14 - I feel like he went way over most of the class' head a bit of the time. I think it would be more helpful if he could make some things a little simpler.
- #15 - Lectures were long so it was hard to pay attention the whole time.
- #16 - Exams and homeworks were unnecessarily difficult and nit-picky. Poorly worded and often times confusing. Content of lecture did not match difficulty of exam/homework...
- #18 - I had a difficult time understanding some of the explanations provided, especially for problems that required math.
- #19 - N/A
- #20 - Accent makes it hard to understand what is said.
- #21 - Very few, but sometimes some of the math equations got confusing and mixed up.
- #22 - In the class you went over few math problems that were very easy, but on the HW and Tests, the questions were very difficult compared to the ones going over in class
- #23 - The lectures moved slowly, and I wish it included more about current climate policies in America and other countries. Perhaps it could include what they are trying to accomplish (ex. lower albedo)

- and why it won't work or will work. Sometimes the class moved too slowly.
- #24 - He doesn't speak loud enough. Often times I would be sitting in the back and could barely hear what he was teaching.
 - #25 - Sometimes the lectures can feel a little difficult if a student has no physics background.
 - #26 - I would have liked to see more math practice problems.
 - #27 - His weaknesses are that his powerpoints don't cover everything in the homeworks, homework is 40% of the course grade which is way too much (maybe something like 15% attendance quizzes, 30% homework, and 55% exams), he doesn't give any instruction on how to complete the homeworks or any in class examples on how to approach some of the very complex problems, the homeworks are done as canvas quizzes (maybe utilize some homework software like pearson labs, expertTA, smartworks, etc.), and the in class quizzes are sometimes very long for the very short amount of time given to complete them (maybe add 1-2 minutes time or delete one question).
 - #28 - We did not learn everything in class that was on homework assignments and even the exams. The homework assignments are very difficult and some of the content in the homework was not gone over in class. He teaches the material, but he never really does any practice problems in class that would be like the ones on the homework. This made it very hard for me to complete the homework.
 - #29 - I've never fully understood the math portion of this course. I understand the theory perfectly well, but the math is a mystery to me. I'm taking calculus right now and doing well, and I generally consider myself to be good at math. However, the way the math was presented/taught was confusing.
 - #31 - The assigned homework was sometimes a little difficult to understand, as some of the questions were not taught in class how to solve.
 - #32 - Some of the lectures could get dry, which could make it hard to concentrate on the course material. In addition, much of the material felt very simple, which added to potential boredom.
 - #33 - He sometimes struggled to make the class interesting.
 - #34 - Not so much the instructors fault but the topic of the class wasn't the most captivating
 - #36 - During lectures it can be a bit dull. Instructor did try to involve students by asking open ended questions at the end of the semester but it was too unexpected by the students then.
 - #37 - None come to mind.
 - #38 - The first couple units of the course felt very repetitive and it would have been helpful to me if he would have explained how the information shown in each graph differed from the previous one (sometimes it felt like all the charts were just saying the planet was warming)
 - #39 - Homeworks were unbelievably hard, math wasn't explained well enough to be successful at it.
 - #42 - Completely out of control, but his accent is sometimes difficult to understand, especially in a large lecture class. The PowerPoints he has up in class don't help the fact that he explains things very clearly in his own words, but again, sometimes it can be difficult to understand. The midterm exams needed more time to complete than what was given. Even though the exams were open note, the questions asked required an extensive dive into problem solving and for students to go through multiple steps with such little time given. With this class being an STS requirement, I found myself struggling more than I would in classes that relate more to my major and what I want to pursue in life.
 - #43 - Didn't give enough problem examples to learn, so on the homework it wouldn't have been so hard.
 - #44 - The course is only a lecture so it can get boring and monotonous sometimes. If the course were more interactive other than the in class quizzes it might be more engaging. Also on a few of the in class quizzes there were some trick questions that should not belong there as it really is just an attendance check.
 - #45 - One aspect of the course I wish was different is the overall class size. I think this subject matter would be better taught in smaller classes.

G20. Please comment on any teaching methods you found particularly helpful, and suggest alternative methods that you feel would improve the course.

Type: Essay

Student Comments

- #1 - I like the book that was chosen to follow the course
- #2 - Keep doing your thing. Maybe cover mathematically based concepts more
- #3 - Most questions that you see on the HW or quizzes, you can count on seeing later, so it's nice to see it before the test. I also appreciate the review classes before the tests, otherwise I wouldn't have a great grade

- #5 - Walking through some of the math problems would have been more helpful. However, I truly enjoyed the lectures!
- #7 - The powerpoint along with the homework assignments made it easier to learn the content.
- #8 - I think he should do anything, literally anything besides lecture, because that was the only thing we did class.
- #9 - going over hw problems was helpful
- #10 - good lectures. challenging homework problems. helped me prepare for the test.
- #12 - The instructor helped me with the homework whenever I go to see him in the office. The PowerPoints are very helpful for the tests and quizzes.
- #13 - I really enjoyed the in class quizzes. They were informative and gave a chance to earn points during the year. The instructor also added a little humor to the lectures.
- #14 - I feel like the availability of the professor is very helpful and he should keep doing this.
- #15 - Worked out problems that are on the exam.
- #16 - Improve course- Make calculation understanding clearer. Exam and homework problems were often poorly worded and confusing. More discussion about topics would help between students during lecture.
- #18 - Knowing what was expected of me for every class was very helpful, as I knew I was able to be properly prepared for the day's class.
- #19 - I found the use of visuals during the lecture particularly helpful. I also thought that allowing the students to create their own graphs through websites on the homework assignments was helpful. An alternative method that could improve the course would be to maybe give a more generous range of error for numerical answers on homeworks
- #20 - Instead of attendance quizzes go over the homework and how to do it.
- #21 - Homework was useful. Lecture was beneficial. Review for exams was very helpful. Exams were fair. Great course and great instructor.
- #22 - Go over more difficult math problems in class.
- #23 - I liked the example problems.
- #24 - Making complex problems into more simple problems was effective, but sometimes the problems just didn't make sense or go with what the formulas meant.
- #26 - I liked having attendance quizzes as it kept me engaged.
- #27 - To improve the course please make some time to do a couple of in class examples of the homework in order to show approaches for completing these problems.
- #28 - The in-class explanations were helpful, but more examples and practice problems in class would definitely improve the course. It would be nice to see step by step solutions to problems we have to know how to solve.
- #29 - He's very kind and does his absolute best to help students understand the material. Dr. Oberheide does a fantastic job in the course overall in my opinion, I simply wish that the math be taught more in depth during class.
- #30 - Every lecture was worth going to because they were all very informative. The homework's were sometimes on the difficult side, but they were helpful overall.
- #31 - How the instructor related what was taught to what is happening in the real world made the class personal and concerning, in a good way.
- #32 - Allowing students to have 3 chances to take the online homeworks was incredibly helpful, as I was able to correct all of my mistakes and learn the topics that I felt least comfortable with on subsequent attempts.
- #33 - I really liked learning through multiple tries on the homeworks.
- #34 - Your review days helped a ton, at first I was considering withdrawing as a back up but the reviews helped
- #36 - The instructor follows the book so it provides an extra source to find needed information if needed.
- #37 - Posting the slides on canvas were helpful as well as the examples on the slides.
- #38 - I liked how visual his slides were - it helped me learn better
- #39 - like i said the quizzes were helpful
- #40 - The teacher made sure that the material was understood and took the time to answer any questions that came up. The homework questions helped me to learn and remember the material.
- #42 - Put more material on the PowerPoint rather than just calculations, such as explaining why certain calculations are made, why certain events occur, etc. Either shorten the number of questions on midterms or lessen the difficult on questions asked.
- #43 - nah

- #44 - The weekly homework was good to keep up with the material but more example problems in the slides would be helpful.
- #45 - I think it would be very helpful if practice problems that are similar to what would be found on that weeks home work were done in class. What I really enjoyed about his teaching methods was his encouragement of students to ask questions or challenge ideas.

G21. I would recommend this instructor to a friend. Yes or no? Why?

Type: Essay

Student Comments

- #1 - Yes, he is helpful. His class is hard and not laid out very well. His assignments are difficult, but he does offer the resources to succeed and is willing to put in work if you do
- #2 - yes, interesting class with interesting instructor
- #3 - Yes, if you want to know how bad climate change really is and want to learn from someone who knows what they are doing, and is passionate about the topic, then Dr. Oberheide is your guy.
- #5 - Yes! It's an interesting course
- #6 - Yes, he was very friendly and always encouraged office hours in the case that someone needs one on one instruction.
- #7 - Yes because Dr Oberheide made it easy to understand which made it a pretty easy class.
- #8 - I would. He is a really nice guy and if you can get past the lectures it's a really interesting course.
- #9 - yes
- #10 - yes. very interesting course that is taught very well
- #12 - Yes, I would because this class fulfills the requirement for both natural science as well as STS. Also, The instructor is nice and helpful.
- #13 - Defiinitely reccomend!Amazing teacher
- #14 - No, I feel like this is a hard class and you could find easier classes that meet an STS requirement.
- #15 - yes
- #16 - Maybe - homeworks and exams are nit picky, poorly worded sometimes, and not representative of knowledge in subject.
- #18 - Yes, because the material is very useful regardless of major and the professor is great.
- #19 - Yes I would. It is a really solid course. The instructor always tells the class his source for his information and presents it in an easy-to-understand way.
- #20 - No. I do not find any value in the STS courses and see them as a waste personally especially with the background agendas based on opinion.
- #21 - Absolutely, always honest and straightforward about what you need to know and do.
- #22 - Probably not, this is a particularly hard STS course.
- #23 - Yes, he thought the course clearly and the textbook provided greater insight into climate change. (Also, I think it would be beneficial if the professor focused on teaching us how to educate others on climate science. I'd like to study why climate skeptics are wrong.)
- #24 - Yes. He is knowledgeable and the course was good.
- #25 - Yes because he is a great teacher and the class is very interesting
- #26 - Yes if you are interested in the physics behind climate change.
- #27 - Not as of now, if some simple changes were made to the course, then yes. He is not a bad teacher, just new, I believe this course has potential to be very strong and have huge benefits to any kid's future who decides to take it.
- #28 - Yes, he is a very good teacher and very passionate and knowledgeable about the subject. It is a pretty difficult course, though, just to be taking for a Gen-Ed requirement.
- #29 - Overall, yes. I think he's a great person, is educated on the subject matter, an does a great job on teaching the course. I like how there are daily attendance quizzes and homework to boost my grade. I greatly appreciate how the exams are open note. I would warn a friend that the math can be confusing, but overall it's a great course with a great instructor.
- #30 - Yes. He clearly cares about what he teaches and tries to make the powerpoint's interesting.
- #31 - Yes, the instructor is a great person and a great teacher.
- #32 - Yes, he was able to present the material very clearly, and I felt that he legitimately cared about the course material. I feel that he is able to explain complicated topics in an easy to digest manner.
- #33 - Yes, this course is important for us to understand as climate change becomes even more of an issue.
- #34 - Yes, all around a good and fair teacher
- #36 - Yes, the instructor did his job. Was not flawless but in no way inhibited performance always wanted

the student to succeed.

#37 - yes, if you have an interest in climate change then this course is very educational

#38 - for sure! super interesting class with BIG implications

#39 - no, i wish i would have taken a different STP requirement.

#40 - Yes. The course was very informative and I enjoyed learning the material.

#42 - I honestly do not know. He is such a nice guy and I know he means well when teaching this course.

#43 - No, a little too monotone

#44 - Yes, he is very nice and it is a very interesting course.

#45 - Yes! He was an excellent instructor, very accessible outside of class and really seemed to care about his student and their grasp of the material.

:

-

Departmental Questions(5809)

D1. I have significantly improved my critical thinking and problem solving skills during this course.

Type: Yes - No

Yes	No	NR
30 (66.67%)	15 (33.33%)	0 (0.00%)