

## Calculus-Based Phys II (EMT) (2020 Spring)

Instructor: **Hanson, Jordan**  
 Subject: **PHYS**  
 Catalog & Section: **180 2**

Enrollment: **24**  
 Responses Incl Declines: **22**  
 Declines: **0**

### Category Summary

Category	Number of Responses	Response Rate	Mean	Dept. Mean	Median	Dept. Median	STDEV
Self-Evaluation	198	91.7%	4.6	4.5	5.0	5.0	0.8
Instructor's Questions	44	91.7%	4.1	4.1	4.5	4.5	1.2
Course	154	91.7%	4.9	4.7	5.0	5.0	0.4
Professor - Jordan Hanson	198	91.7%	4.9	4.8	5.0	5.0	0.4

### Demographics

Question	Number of Responses	Liberal Education	WSP requirement	Major requirement	Minor requirement	Elective/Interest
Why did you take this course? (Select primary reason.)	22	5%	0%	91%	0%	5%

  

Question	Number of Responses	First-Year	Sophomore	Junior	Senior	Graduate
What is your year in college	22	50%	23%	27%	0%	0%

### Quantitative Data

#### All Likert Scale Questions - Self-Evaluation

Question	Number of Responses	Response Rate	Course Mean	Dept. Mean
I attended class regularly.	22	91%	4.7	4.9
I was academically prepared to handle the material.	22	91%	4.6	4.5
I came prepared for each class session (i.e. have read all course readings and completed assignments).	22	91%	4.6	4.6
I actively participated in class discussions.	22	91%	4.4	4.2
I attended scheduled office hours if I had questions about the course material.	22	91%	4.5	4.3
I tried to relate course material to other things I know and/or study.	22	91%	4.8	4.7
I worked to my full potential in this course.	22	91%	4.6	4.6
I was satisfied with my performance in this course.	22	91%	4.6	4.4
I had a strong desire to take this course.	22	91%	4.7	4.4

Note: 1:Disagree; 2:Moderately disagree; 3:Neutral; 4:Moderately agree; 5:Agree; -1:N/A;

#### All Likert Scale Questions - Instructor's Questions

Question	Number of Responses	Response Rate	Course Mean	Dept. Mean
The Pivot Interactive online laboratory activities were useful for understanding course concepts.	22	91%	4.1	4.1
The Pivot Interactive online laboratory activities were useful for practicing lab skills like data analysis and graphing.	22	91%	4.1	4.1
Note: 1:Disagree; 2:Moderately disagree; 3:Neutral; 4:Moderately agree; 5:Agree; -1:N/A;				

## All Likert Scale Questions - Course

Question	Number of Responses	Response Rate	Course Mean	Dept. Mean
This course had clear goals and objectives.	22	91%	5.0	4.9
This course was academically challenging.	22	91%	5.0	4.9
This course offered useful learning tools (such as lectures, discussions, readings, assignments and/or examinations).	22	91%	4.9	4.8
This course had grading criteria that were clearly identified.	22	91%	4.9	4.8
This course improved my understanding of the material.	22	91%	4.9	4.7
This course increased my interest in the subject matter.	22	91%	4.7	4.5
Overall, I would recommend this course to others.	22	91%	4.9	4.6
Note: 1:Disagree; 2:Moderately disagree; 3:Neutral; 4:Moderately agree; 5:Agree; -1:N/A;				

## All Likert Scale Questions - Professor - Jordan Hanson

Question	Number of Responses	Response Rate	Course Mean	Dept. Mean
The professor used class time effectively and demonstrated preparation for class.	22	91%	5.0	4.9
The professor's teaching style and/or enthusiasm for the material strengthened my interest in the subject matter.	22	91%	5.0	4.7
The professor was able to explain complicated ideas.	22	91%	4.7	4.7
The professor challenged students to think critically and/or imaginatively about the course material.	22	91%	5.0	4.9
The professor provided clear and timely feedback.	22	91%	4.9	4.7
The professor encouraged meaningful class discussions.	22	91%	4.9	4.8
The professor was receptive to differing views.	22	91%	5.0	4.8
The professor was available for help outside of class.	22	91%	5.0	4.9
Overall, I would recommend this professor to others.	22	91%	5.0	4.8
Note: 1:Disagree; 2:Moderately disagree; 3:Neutral; 4:Moderately agree; 5:Agree; -1:N/A;				

## Open Ended Responses

Written Comments (154 comments)

**Q: What useful feedback could you provide the professor of this course? (Please be specific.)**

- 1 The lab activities were very helpful as a way to help understand the material more
- 2 n/a
- 3 Demand little more student participation
- 4 I loved his patience and willingness to help his student. In addition, very understanding about situations and always looking to give a solution not just consequences.
- 5 idk
- 6 Physics 180 was a very enjoyable course. I particularly enjoyed the e and b field sections, and the wave equation at the end of the course. I am glad that Professor Hanson went to a zoom style because I enjoyed it more!
- 7 I found that with this course I was able to gain a better understanding on the material. The Expert TA homework, although often times time consuming, really allowed me to work on problems that we are learning in class, and ultimately comprehend the material.
- 8 Very awesome professor always works with students and always asks for their opinions before making final decisions
- 9 Keep up the enthusiasm
- 10 Great course!
- 11 I enjoyed this course a lot and learned a lot of interesting topics I knew little about before.
- 12 Nothing
- 13 I think you handled the transition to online classes well, there was always something to do for the class so that was nice.
- 14 I think the professor did a great job teaching this class. He is always prepared and has goals for each class. He is always there to help out when needed.
- 15 N/A
- 16 The professor taught the course VERY well. When he goes over examples on the board, he literally goes step by step to make sure you understand what he is doing. His derivations for important formulas and equations are awesome because it gives you an understanding of where the equation comes from. Very well done professor!
- 17 Class was fun and interactive. Pre quarantine, the clicker problems were a great way to be involved in class and asses ones understanding.
- 18 Nothing
- 19 I feel like the lectures & slides could be more guided. I often find it difficult to follow the lectures because the pace can be quick.
- 20 Great class
- 21 N/A
- 22 You should continue to make the online tutorial videos, even after quarantine, because it is useful to be able to have the professor in recording to repeat complicated concepts and have the ability to revisit material at will as well.

**Q: What were the best aspects of this course? (Please be specific.)**

- 1 The zoom lectures were pretty fun
- 2 n/a
- 3 Learned A LOT about electricity
- 4 The teacher.
- 5 his interaction with the students and understanding of the material to explain his knowledge to the students , great individual.
- 6 I think my favorite part of the course was learning that e and b fields combine to create light waves. That was just one of my favorite things from this semester, there were many.
- 7 The best aspect of this course was the final lab projects because we got to conduct an experiment by collaborating with our table partners. It was very interesting to plot our data on graphs.
- 8 The project
- 9 Professor's teaching
- 10 Loved the material, loved the teaching style. I also really liked how Dr. Hanson took the time to teach us a little about statistics and error, which I think are really important in things like research, and upper level sciences.
- 11 I enjoyed the daily lectures and the final project presentations as I saw some interesting experiments.
- 12 Professor Hanson!

- 13 Great teaching style, and learning the connections and implementations of everything we learned in class was fascinating.
- 14 The best aspects of this course was the daily reading quizzes in the beginning of class. I was able to see what I was struggling on so I could get help.
- 15 N/A
- 16 Prior to moving online, the best aspect of the course were the lab activities. During this semester, the lab activities were mainly simulations because some concepts would have been hard to model in physical labs. Overall, the labs were very fun and engaging. The final project at the end of the course was really fun as well.
- 17 The professor, he was very helpful and understanding and detailed when teaching even the most complicated concepts.
- 18 The lab activities
- 19 I enjoyed the lab activities.
- 20 The application of the theories and ideas
- 21 Probably the entirety of the zoom lectures
- 22 The material. In all honesty, I dislike group work however, the final project was a great way to show students what experiments can really be. I really wanted to go deep with the project but as I worked to get data I only encountered more problems wanted to explore.

**Q: What would you change about this course? (Please be specific.)**

- 1 Nothing
- 2 n/a
- 3 N/A
- 4 I like the lecture slideshow from in class but when I try to study off them. I found them hard to understand sometimes on my own.
- 5 more experiments / gathering data
- 6 There is nothing I would change.
- 7 The only thing I would change about this course would be uploading our grades onto Moodle so we can be aware of our grades throughout the semester.
- 8 Nothing
- 9 N/A
- 10 I honestly did not find the lab or PHET activities helpful at all. I understand the intention behind them, but personally I didn't find them helpful. I would have loved to spend more time learning about the actual material, which I found really interesting.
- 11 I think learning would have been better in a classroom but given the situation that was obviously not possible so we did the best we could and Professor Hanson was amazing.
- 12 N/a
- 13 More conceptual homework problems, or shorter homeworks maybe
- 14 I wouldn't change anything.
- 15 N/A
- 16 I would not change anything about this course. I think the way it is right now is perfect.
- 17 I'd rather not have to pay for expert TA lmao, also the program can be really awkward and can do lots of points for confusing little mistakes.
- 18 Nothing
- 19 I would ask that the professor has review days before the exam where all the questions on the study guide are addressed.
- 20 Expert TA was helpful rather have written hw, expert TA was too picky I guess
- 21 I would not change anything
- 22 Perhaps make a resource where the products of units are displayed.  
Ex.  
 $\text{Volts} \times \text{Amps} = \text{Watts}$   
Or the units within a Henry  
It is nice to see them on the formula sheet on the study guide, but it would be wicked useful to have all that information all together.  
Perhaps make it a homework assignment if it feels like too much of a task.

**Q: Please evaluate your own performance in this course. That is, are you satisfied with your accomplishments in this course? If not, what should you have done differently to improve your performance and/or comprehension of the course material.**

- 1 Satisfied with my performance
- 2 n/a
- 3 Always room for improvement when it comes to effort
- 4 I am very satisfied with my accomplishments in this course
- 5 I challenged my self to become better and I did gradually while learning at my own pace and had more time (unexpectedly) to search up any topic/ formula to see how it applies in the real world situations thankfully.
- 6 I hope I did well! I enjoyed the curriculum that was covered, and I feel like I learned a lot. Working with Professor Hanson is always fun.
- 7 I was satisfied with my accomplishments in this course especially with my midterms because I thought switching to online would really effect me, however I think it just forced me to work harder.
- 8 Very satisfied
- 9 I feel like I did ok
- 10 I think I worked to my full potential, I really liked the class.
- 11 I am happy with what I was able to do and learn in the class. I do wish that I did better on the homework assignments but overall I am happy.
- 12 I did ok
- 13 I believe I did satisfactory work for the course and put in effort learning the materiel.
- 14 I think I did a good in this course. The only thing that I messed up on is my midterms. I wish i studied a little bit more so i could have done better.
- 15 I am not satisfied and will never be until I get to where I want to be in life. This class was challenging for me but I know I could have done better if I had a tutor or if I studied more.
- 16 I am very satisfied with my performance in this course. I learned and understood the material very well, and I think that is what counts overall.
- 17 I probably could have done better. I will be going back to the online lectures on moodle when I transfer for the 3-2 program.
- 18 I tried my best
- 19 I am satisfied
- 20 I did all right
- 21 I believe i could have done homework a little sooner
- 22 I could have put more effort into the class, getting lost in all the information is easy and if I were to keep a better grip on certain concepts I probably would have done better.

**Q: How much, and in what ways, was your evaluation of the course affected by the shift to online teaching?**

- 1 Not much
- 2 n/a
- 3 Little to None
- 4 Not at all
- 5 the online pivot was hard to adjust to because I wasn't in class trying it out my self.
- 6 Of course I prefer classroom learning, however, I feel that Professor Hanson did a great job with the class zoom meetings, and he was always available before and after zoom, and always responded promptly to emails.
- 7 My evaluation of this course was not affected by the shift to online teaching because Professor Hanson did a really good job of using the Zoom lectures to continue explaining the material.
- 8 Not at all
- 9 Became more difficult
- 10 Not much
- 11 Not very much affected because professor Hanson did really well in helping us.
- 12 It was hard to keep up

- 13 The class shifted relatively well to online learning, which impressed me for the difficulty of the class
- 14 Shifting to online classes did not affect the evaluation of the course. The structure is around the same as on campus.
- 15 It was horrible because I wasn't able to get the face to face interactions with our professor and it was more of self learning.
- 16 None at all. It was inevitable that the courses be moved to a remote teaching format. I don't think it should be accounted for in the course evaluation. There is a dedicated section for this below.
- 17 Not much, mostly just a lack of motivation but overall still an interesting class to participate in.
- 18 Not affected at all
- 19 In some ways I think it was positively affected because I felt like the pace was a bit slowed and before lectures were quick and the board often got erased.
- 20 Not to much
- 21 Not much
- 22 The course was fairly the same given the reading/lecture-note taking format. Labs were odd but encouraged analytical thought/

**Q: What did the professor do to change the course to an online format?**

- 1 Used zoom lecture
- 2 n/a
- 3 Zoom Lectures, Pivot interactives
- 4 He had zoom meetings and take home exams.
- 5 zoom lectures and constant feedback
- 6 Professor Hanson held class during class time via zoom, which I appreciated.
- 7 Professor Hanson changed the course by assigning Pivot interactive experiments because we could no longer do labs in class. Also, we continued to attend lecture MWF but with Zoom.
- 8 Lecture on zoom
- 9 Zoom
- 10 Online lectures, take home exams, online office hours. I would have liked if he could record the lectures so we could have watched them all again to prepare for the exam, I'm not sure if he did that.
- 11 He used zoom for every class period and actively sent out emails and was very responsive and was open for one on one office hours via zoom too which was great. Also used online labs which was helpful.
- 12 Take home tests/ online labs
- 13 He made pre-lecture videos as well as had zoom classes, he introduced Pivot which was a nice way to due lab type activities online.
- 14 The only thing that really changed is that the midterms had to move online and he gave us a more time cause he knew that this was a difficult time for most of us.
- 15 Zoom classes and labs activities.
- 16 The professor did not have to make any big changes to move to an online format. He tried to make it as similar as possible to the lectures conducted physically in class. The remainder of the lab activities were done using Pivot Interactive, and I thought it was better than having no labs at all. Overall, the professor handled the change very well.
- 17 Teaching method was already solid so not much had to be changed.
- 18 Moved onto zoom.
- 19 The professor was very understanding and still encouraged class discussions even though it can be difficult.
- 20 Yes
- 21 Zoom and email
- 22 Create more resources such as tutorial videos and gave more time to assignments to accommodate the needs of the student.

**Q: Focusing specifically on the online portion of the course, what worked well and what worked less well?**

- 1 powerpoint and video tutorials worked really well
- 2 n/a

- 3 Everything worked well
- 4 I think the take home exams worked very well because everyone that different circumstances at home. Zoom meetings were also helpful for quick questions and lecture but I wish there were maybe more resources when it came to studying for my exams.
- 5 what worked well was the lectures because he made it interactive didn't matter where I was it was cool to stay focused and engaged. what did not work well was the pivot interactive login it made no sense
- 6 The whole course went smoothly with the shift to online learning. However, I am really hoping that we are going back to a traditional class setting in the fall.
- 7 The live Zoom lectures and tutorials really worked well, however the Pivot interactive was often times confusing.
- 8 Everything worked pretty good
- 9 Zoom worked very well
- 10 -
- 11 The zoom sessions worked really well for me and the online labs too.
- 12 h
- 13 I think overall most implementations he did worked well
- 14 Majority of the course was the same.
- 15 Overall class online is horrible because it is more of self learning and trying to understand the material made it difficult because my internet would always cut off zoom throughout class. The lectures worked well.
- 16 Of course, there were some technical issues that arose through the use of Zoom. One aspect of the course that I think worked less well were the final projects. The final projects were not as good as the ones done last semester due to the fact that we couldn't physically meet with groups. In the end, we did get the final projects done.
- 17 Well - everything except  
Less well- the final project felt kinda clunky and a little more difficult
- 18 Lectures worked well lab activities were more stressful
- 19 I think the lectures worked well because there was still interaction. I don't think anything didn't work well.
- 20 Zoom
- 21 Zoom worked very well, email not so much
- 22 If the course is followed as directed, it is easy to get an A grade. It is a matter of being willing to put in the effort.

## Supplemental Questions

### Supplemental Questions

Question	Number of Responses	Response Rate	STDEV	1	2	3	4	5	-1
The Pivot Interactive online laboratory activities were useful for understanding course concepts.	22	91%	1.2	9%	0%	14%	27%	50%	0%
The Pivot Interactive online laboratory activities were useful for practicing lab skills like data analysis and graphing.	22	91%	1.2	9%	0%	9%	32%	50%	0%

Note: 1:Disagree; 2:Moderately disagree; 3:Neutral; 4:Moderately agree; 5:Agree; -1:N/A;