PHSC 13400 1, ENSC 13400 1, GEOS 13400 1, ENST 12300 1 - Global Warming: Understanding the Forecast - Instructor(s): Douglas R Macayeal

Project Title: **College Course Feedback - Autumn 2023**

Number Enrolled: **101**
Number of Responses: **49**

Report Comments

Opinions expressed in these evaluations are those of students enrolled in the specific course and do not represent the University.

What are the most important things that you learned in this course? Please reflect on the knowledge and skills you gained.

Comments
Global warming, radiation
Global warming is real. World leaders could've stopped the warming long ago but couldn't get it together.
learning about global warming
global warming and how to use models like MODTRAN to analyze warming trends and data
Why the earth's temperature is rising and what we can do about it
processes that affect global warming
The importants of global warming
how to record large amount of data and using that prove a theory or a common misunderstanding while also acknowledging drawbacks and limitations.
how heat in reflected by a rooftop
Understanding and enjoying learning for learning itself. About how global warming is occuring and various theories regarding it – the magnitude of global warming's impact and why we should be worried from a scientific perspective.
Understand why the climate changes, whether humans have an impact or not.
Greenhouse effect and its consequences, sea level rise, glacier melting, plant survival, etc
I proved with my own two hands that global warming is real. I did the math.
New ways of thinking about environmentalism – how change is financed, different methods for assessing costs and benefits.
Global warming. Nuclear winter.
I actually learned how to code, which is really cool and new to me.
Understanding the physical processes behind climate change and the data/proof used by scientists when studying climate change
I learned python skills, the effects of global warming and ways in which humans contribute to it.
Concrete proof that the world is warming and its potentially devastating consequences
I learned about the relationship between humans and global warming and the science that is behind the greenhouse effect. I also learned much about the differences in heating between different areas of the world given their geographic qualities.
Geoengineering
This class teaches the fundamentals of understanding the earth's climate and how science attempts to measure human impact on climate change.
Global warming and the affects on the earth.
The flux of energy in the atmosphere, the effect of albedo, the usage of fossil fuels and its impacts on the earth, the consequences of the increase of various degrees Celsius on the earth, and how to analyze data for scientific experiments.
I learned how global warming is effecting the world.
Learned a lot about global warming and even more about the Professor's niche interests (blacksmithing) which was certainly enjoyable.
I actually feel more comfortable using Python, and I learned a lot about what really is "global warming" and how human intervention affects different climate responses.
Important scientific and historical aspects of the global warming crisis.
How global warming works
How to read news articles about global warming, how to interpret data, basic Python skills, geological history of earth, everything about climate that is applicable to being able thinking critically about global warming!
The urban heating effect and some history about the important figures in climate change.
I learned a lot about global warming, regarding what it actually is and how will it actually affect us in the future.
I learned about how global warming affects the earth.
I learned about the science behind global warming, radiative transfer, the carbon cycle, how climate research has changed in the last century, and its effect on human communities and cities.

Describe how aspects of this course (lectures, discussions, labs, assignments, etc.) contributed to your learning.

Comments
Lectures and labs were interesting
I enjoyed the New York Times articles with nice visuals, learnt a lot from those. Also enjoyed the labs – felt like I was actually gaining something , had the best TA too (s/o to Haynes)
labs and lectures
lectures were good
Lectures (with easy assignments) + lab were the two components of the course, and both were helpful.
lectures were engaging
They helped me learn easier
lectures and lab assignments
lab discussions
the lectures were interesting and taught me a lot. Labs were really helpful as well because they increased my skills with Python and Jupyter Notebook (I could follow along easily despite having no prior coding experience)
Lectures twice a week, with extra readings.
Lectures were best, labs were more coding and math
Doug's lectures contributed the most to my learning. The labs were helpful as well for seeing how the graphs worked.
Lectures and readings were particularly useful.
Everything is very helpful.
The lectures are so much fun, the labs taught me how to code using the jupyter notebook, and the assignments and quizzes really enhanced my understanding of the material.
Great lectures & weekly lab sessions
Lectures were very detailed and the instructor/lectures were very engaging. Labs were very helpful considered I had no experience with the python software prior to the course. The labs guided us through everything.
Labs got the lab report done (although it was more so sit and copy the TA's code). Lectures got the interesting content across though.
The lectures were very helpful in understanding the material. The professor was very nice and happy to answer questions and he recorded his lectures too. The labs were designed to help with the coding assignments which were not difficult at all (as someone with little coding experience). The course was fun and engaging.
Didn't really like lectures where we did the lab, was more interested in how to solve global warming (individuals, government, companies), not necessarily how it is collected
The lectures are interesting and Professor MacAyeal is a great speaker who truly loves his work and enjoys teaching his students. Go to lecture. You wont regret it.
Lectures and labs.
Lectures were very important to complete assignments such as reading quizzes or comprehension quizzes. It also helped that they were recorded as well.
The lectures were very interesting.
It was almost unnecessary to attend lectures considering how the professor approached grading. I will say that going to lectures helps a lot with understanding lab material. However, the way the lectures were presented did not make clear which information was really important to know for the labs, so attend lectures at your discretion I guess?
I think the labs with the Teaching Assistant were the most helpful part of my experience.
The readings are very light, and attending lectures was always interesting and the most helpful in terms of gaining an understanding of the content. We were led through coding labs that worked with data relating to global warming, which was helpful as signposts of our understanding.
Lectures were pretty interesting. He's really fun and keeps lectures engaging. TA lab sections are really helpful for finishing lab projects.
The lack of heavy math actually helped me learn SO MUCH MORE about this topic. The labs were facilitated by the TA's and did a great job of being accessible to us students without strong math computation skills. Instead, we focused on building and interpreting various graphs. The assigned readings (mostly New York Times or other major reputable news outlets) contributed greatly to my general knowledge of the current discussion about climate change going on here in the US, and the possible solutions. Lectures were well constructed, and highly engaging. Doug is a great professor who loves what he teaches, and his interest is infectious!
Lecture recordings were very helpful to go over material quickly.
The labs and assignments were pretty interesting and helpful!

Comments
The labs were helpful in learning how to do the code, while the lectures did not help that much.
reading and lecture comprehension assessments were great
Lectures were fun and engaging, and the articles we read on climate change helped me engage further with lecture material

Please respond to the following:

	Mean	Median	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
This course challenged me intellectually.	3.96	4.00	2.17%	2.17%	26.09%	36.96%	32.61%
I understood the purpose of this course and what I was expected to gain from it.	4.48	5.00	0.00%	0.00%	6.25%	39.58%	54.17%
I understood the standards for success on assignments.	4.56	5.00	0.00%	0.00%	8.33%	27.08%	64.58%
Class time enhanced my ability to succeed in graded assignments.	4.31	5.00	2.22%	0.00%	17.78%	24.44%	55.56%
I received feedback on my performance that helped me improve my subsequent work.	4.30	4.50	0.00%	2.27%	15.91%	31.82%	50.00%
My work was evaluated fairly.	4.70	5.00	0.00%	0.00%	4.26%	21.28%	74.47%
I felt respected in this class.	4.69	5.00	0.00%	0.00%	6.25%	18.75%	75.00%
Overall, this was an excellent course.	4.70	5.00	0.00%	0.00%	2.13%	25.53%	72.34%

Additional comments about the course:

Comments
Take this class
The best professor ever
take this class, great physics core for non physics majors, not difficult
Amazing course, most assignments/lab are graded by completion, so you can come here to learn, hoping that Doug can teach again
will be great if we can listen to guest speaker events to gain a more holistic understanding of current debates and studies surrounding global warming.
I loved this course, but if you take it please go to lecture. It's literally so easy, so just go and listen. Everyone tells you to take this course because of how easy it is, which is true, but the subject is actually really important and effects everyone on this planet so don't just ignore the course material all together, its super interesting and at times quite depressing.
N/A
P. MacAyeal is excellent and engaging lecturer
This class was about real learning and not about grades.
Amazing course.
I strongly encourage everyone reading this to take this class before it is discontinued! We were told on the first day of class that "95% of the class will get an A." As long as you turn in all of the assignments, regardless of whether they are right or wrong, you will get an A
The work is essentially all completion, so largely what knowledge you get out of the course is based on your own input (as in, attending the lectures)
This class is pretty chill and interesting. Highly recommend for core requirement.
10/10 would take again

I would recommend this course to:

	No	Yes
Highly-motivated and well-prepared students	10.87%	89.13%
Anyone interested in the topic	0.00%	100.00%

Thinking about your time in the class, what aspect of the instructor's teaching contributed most to your learning?

Comments
He was very friendly and flexible with classes and the coursework content. Zero pressure class.
He was very engaging
lectures
Lecture
slides and quizzes
The lectures
lecturing and sharing personal experiences to faciliate different topics
lecture slides
his enjoyment – doug is here because he loves the content and is intrigued by it. His excitement is contagious and made me pay active attention through 80 minute lectures – very worth it!
Doug's passion for the topic and commitment to making the content accessible and interesting to students of all backgrounds.
Lectures were personalized and well taught
Lectures and reading quizzes.
His passion for the subject
His enthusiasm for the subject.
Doug doesn't need my praise, because I think he's retired, but he truly was just a great instructor. Sympathetic to students, interesting, and super funny (which is a feat for such a depressing topic.) He's just the kind of professor everyone should want to have.
I think lectures and homework were useful.
Everything! Doug is one of the most knowledgeable and best professors I've ever encountered in this university!
Professor Doug is just great!
He's an engaging speaker! Also appreciated his willingness to host classes both in–person and on Zoom to best accommodate people's schedules and sickness
The instructor was lenient with our work, and was very passionate about the subject which helped me be motivated and inspired.
The lectures
He described topics in a very digestible way which was helpful given that I had little experience with climate science.
Professor MacAyeal represented the Climate Science community extraordinarily well and his passion for his work shows.
Lectures and labs.
The professor's lectures were engaging, although sometimes off–focus.
His enthusiasm about the topic and how he taught the class it put less stress on me
I really enjoyed the information presented in lecture.
He's very chill. He just expects that you're interested and try your best. The class lectures weren't the most helpful, but the lectures slides and his patience with us made this a very low pressure class for me to at least try and learn some of the difficult topics.
Certainly the lectures, which were usually very interesting. Doug is a great professor and a wonderful person, and includes some fun anecdotes that stick in your mind, and it's clear he cares a lot about the subject while still wanting to appeal to us as non–stem students.
TA lab sections!
Engaging lectures that were focused on material that Doug was excited about, as well as Doug's commitment to not worrying about grading or having a large midterm and final. Because of this, I was able to keep up with all the readings, attend plenty of lectures by Zoom in my pajamas, and overall enjoy learning about climate change.
Passion for the topic and interest.
He really valued and respected students!
The aspect of the instructor's teaching that contributed most to my learning were the assignments that were posted on Canvas that helped us walk us through each of the concepts discussed in class.
Doug was such an incredible instructor! You could clearly tell his passion for the subject and just how much he loves teaching, and getting to listen to him in lectures was honestly a really incredible experience overall. He's always super engaging, and you could so clearly see just how much he puts in for students and for us to learn.

Comments
He was helpful in explaining and describing the complexities of certain concepts in lectures.

What could the instructor modify to help you learn more?

Comments
n/a Doug is amazing – you learn if you want to learn.
Nothing
nothing, doug was amazing
Nothing, Doug was perfect
Nothing
i think the structure is working well
less coding in the labs
n/a
Nothing! maybe require attendance
N/A
Nothing
Nothing.
I think more practice problems for the quantitative portions of the class would be useful.
Nothing! Doug is already perfect!
nothing really
I don't think coding in the labs was the most helpful. I'd rather have less time devoted to coding and more time to do another lab and look at more data related to climate change
Possibly more strict rules about class attendance as sometimes my motivation there was lacking.
N/A
N/A
Nothing.
Modify the length of the labs (specifically Lab A) and try to stay on topic during lectures.
nothing
Labs could be improved – specifically it would be helpful to have lecture slides that make clear what information will be needed to complete labs. I loved that quizzes were graded on a complete/incomplete scale but also felt that this gave me no real motivation to actually understand the reading and lectures. I feel weird saying this, but a few graded quizzes (worth only a small percentage of the grade) would have helped me motivate myself to be a more active learner.
Nothing honestly.
The "real" STEM aspects of this course were sort of hard to follow because they were covered very quickly, and some of the lectures felt a bit unfocused. As much as I appreciate the flexibility that Doug gave us, I sometimes felt unengaged and not necessarily like attending lectures would be useful.
Nothing. This class was phenomenal.
Have the TA's explain a bit more about the variables and processes in the Labs, rather than just rote "put this here, this here, etc."
More assignments
The instructor can make the first lab in the course more clear in order to allow people who have never coded before success while learning.
N/A

The Instructor . . .

	Mean	Median	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
Organized the course clearly.	4.67	5.00	0.00%	0.00%	4.17%	25.00%	70.83%	0.00%
Presented lectures that enhanced your understanding.	4.66	5.00	0.00%	0.00%	8.51%	17.02%	74.47%	0.00%
Facilitated discussions that were engaging and useful.	4.65	5.00	0.00%	0.00%	6.52%	19.57%	67.39%	6.52%
Stimulated your interest in the core ideas of the course.	4.62	5.00	0.00%	0.00%	8.51%	21.28%	70.21%	0.00%
Challenged you to learn.	4.54	5.00	0.00%	2.17%	10.87%	17.39%	69.57%	0.00%
Helped you gain significant learning from the course content.	4.70	5.00	0.00%	0.00%	6.52%	17.39%	76.09%	0.00%
Was available and helpful outside of class.	4.68	5.00	0.00%	0.00%	4.17%	22.92%	70.83%	2.08%
Motivated you to think independently.	4.68	5.00	0.00%	0.00%	8.51%	14.89%	76.60%	0.00%
Worked to create an inclusive and welcoming learning environment.	4.77	5.00	0.00%	0.00%	4.17%	14.58%	81.25%	0.00%
Overall, this instructor made a significant contribution to your learning.	4.74	5.00	0.00%	0.00%	6.52%	13.04%	80.43%	0.00%

Please include the name of the TA/CA/Intern you are evaluating. What aspects of the TA's teaching contributed most to your learning? What could the TA modify to help you learn more? Please include any additional feedback for the TA/CA/Intern.

Comments
Haynes Stephens, highly recommend
Haynes – Super helpful during lab sessions and outside of class!
Haynes. He was extremely good at explaining the code and the graphs that we produced, he went through every question very meticulously and made sure that we all understood, he was really friendly and always willing to help us. Wouldn't change a thing – Haynes is the best TA I've ever had.
Hsing–Hung Chou
Branson
Haynes Stephens
Hsing–Hung Chou. He was very helpful. Nothing he could modify.
Chao Zhang
Haynes
Chao Zhang
Hsing–Hung was great! Very helpful and very nice!
Branson Star
Branson was dope very helpful and patient.
Haynes was great! So helpful and very present for TA sessions and office hours.
Diego
Haynes Stephens Haynes is very great! Love him soooo much!
Haynes was so so helpful, he provided all the help he could for all my questions and really assisted me to understand the materials and the labs better.
Chao Zhang. His lab sessions helped me understand the assignments much better. When running labs, I think walking through more of the conceptual problems (explaining the data, for example) more thoroughly would have been helpful.
Haynes Stephens was very kind and built an inclusive environment throughout lab. He was moted to teach/help and was interested in the topic. He did not make us feel bad when we were confused or had questions and was very available to help outside of class.

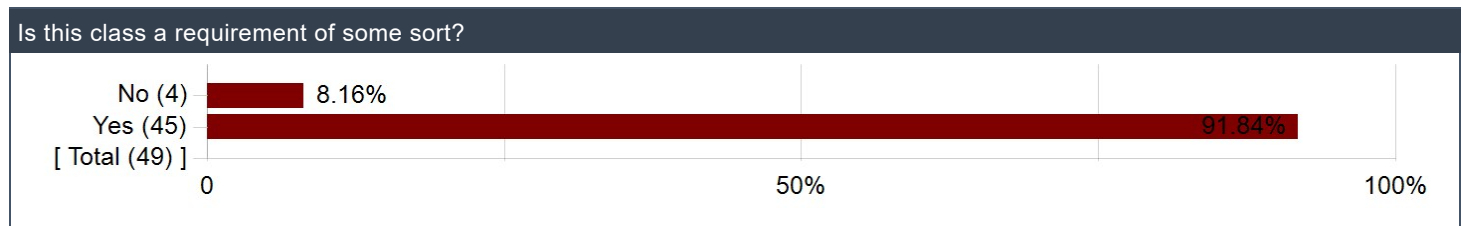| Comments |
| --- |
| Chao Zhang |
| Haynes was awesome. He took the time to talk outside of lab meetings and was extremely helpful with all coursework. |
| He was great! |
| Hsing–Hung Chou– great TA! Always well–prepared, engaging during class, and available to discuss after class if we needed extra help. |
| Haynes Stephens. He was super cool and helpful with any questions about the labs |
| Chao was great. He was very patient with our lab section and understood that none of us had any experience with coding on a Jupyter Notebook, and made sure that we were all on the same page before moving on. |
| Branson Starr
I feel like it took a few lab sections for the TA to really figure out how best to approach helping with the labs. I also feel that there could have been better communication between the professor and the TA and the TA and the students. The professor would often say one thing about due dates for a lab and the TA would then say something else, which was stressful for me. I did not reach out to the TA much for help but when I did his responses were delayed (which was a problem when I sent an email about something due imminently). I also felt intimidated asking questions of the TA. He was nice, but sometimes I felt like my questions weren't taken seriously or they were treated as too simple (when I was legitimately confused). |
| Branson Starr, amazing individual who helped me during office hours to explain even the most basic concepts. He's very accessible and patient. |
| Branson Scott–Star |
| Hsing–Hung Chou |
| Haynes Stephens. Walked us through the labs, which made it a lot easier to tackle. Highly recommend going to your lab section. |
| Chao Zhang |
| Jeonghwan Lee, very helpful inside and outside of lab. |
| Haynes Stephens |
| Brandon Starr |
| Branson Starr — Branson was always super helpful in labs and really responsive outside of them too. |
| Haynes Stephens |

The TA/CA or Intern. . .

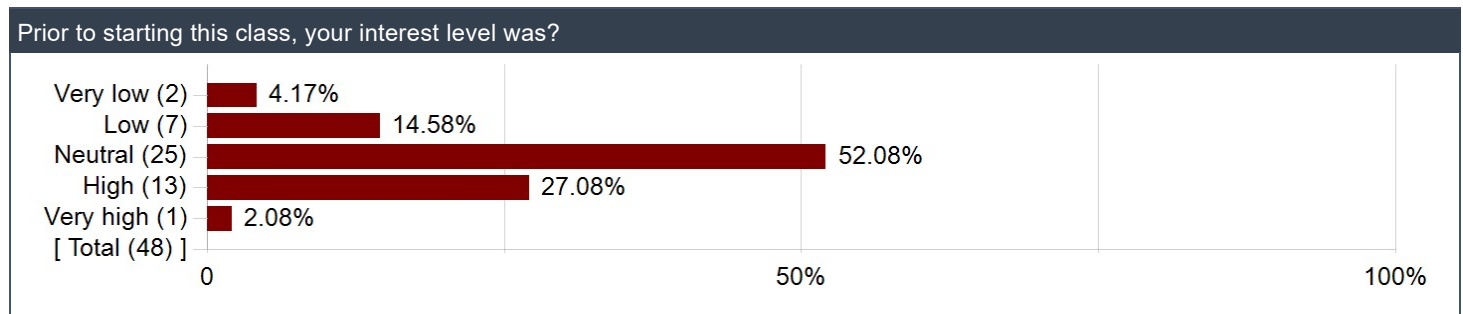|	Mean	Median	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
Facilitated discussions that supported your learning.	4.56	5.00	0.00%	0.00%	9.09%	20.45%	59.09%	11.36%
Gave you useful feedback on your work.	4.56	5.00	0.00%	0.00%	13.33%	15.56%	66.67%	4.44%
Stimulated your interest in the core ideas of the class.	4.53	5.00	0.00%	2.27%	11.36%	15.91%	68.18%	2.27%
Challenged you to learn.	4.64	5.00	0.00%	0.00%	9.09%	18.18%	72.73%	0.00%
Helped you succeed in the class.	4.71	5.00	0.00%	2.22%	6.67%	8.89%	82.22%	0.00%
Was available and helpful outside of class.	4.66	5.00	0.00%	0.00%	8.89%	15.56%	73.33%	2.22%
Overall, this individual made a significant contribution to your learning.	4.58	5.00	0.00%	0.00%	15.56%	11.11%	73.33%	0.00%

How much did the following elements of the course contribute to your learning gains?

	Mean	Median	No Gain	A Little Gain	Moderate Gain	Good Gain	Great Gain	N/A
Laboratory Experience	4.10	4.00	3.23%	6.45%	12.90%	32.26%	45.16%	0.00%
Field Trips	4.50	4.50	0.00%	0.00%	0.00%	4.00%	4.00%	92.00%
Library Sessions	4.50	4.50	0.00%	0.00%	0.00%	4.17%	4.17%	91.67%
Review Sessions	4.75	5.00	0.00%	0.00%	0.00%	3.85%	11.54%	84.62%
Writing Seminars	4.50	4.50	0.00%	0.00%	0.00%	4.00%	4.00%	92.00%

Is this class a requirement of some sort?

Is this class a requirement of some sort?

No (4) — 8.16%
Yes (45) — 91.84%
[Total (49)]

0   50%   100%

Prior to starting this class, your interest level was?

Prior to starting this class, your interest level was?

Very low (2) — 4.17%
Low (7) — 14.58%
Neutral (25) — 52.08%
High (13) — 27.08%
Very high (1) — 2.08%
[Total (48)]

0   50%   100%

Now that this class is over, your interest is?

Now that this class is over, your interest is?

Diminished (2) — 4.08%
Satisfied (23) — 46.94%
Heightened (24) — 48.98%
[Total (49)]

0   50%   100%
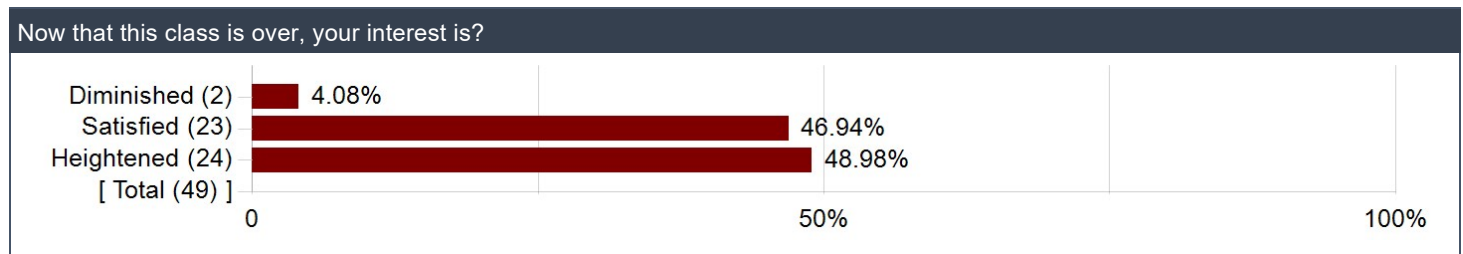
Why did you choose to take this course? (Select all that apply)
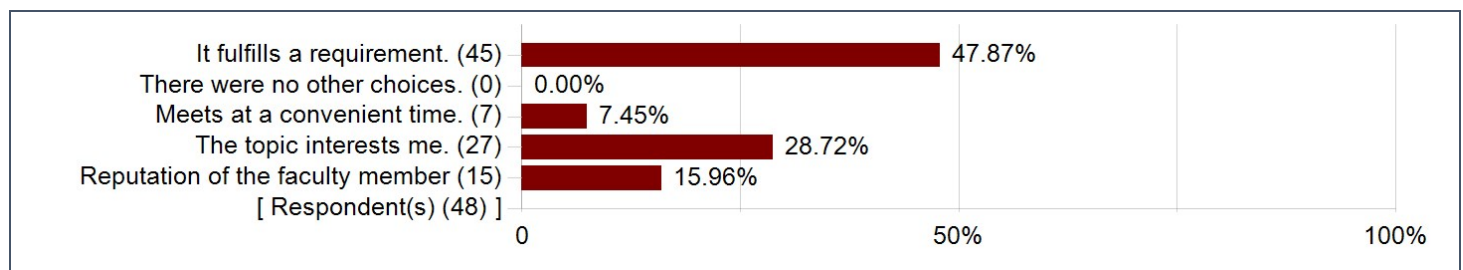
It fulfills a requirement. (45) — 47.87%
There were no other choices. (0) — 0.00%
Meets at a convenient time. (7) — 7.45%
The topic interests me. (27) — 28.72%
Reputation of the faculty member (15) — 15.96%
[Respondent(s) (48)]

0   50%   100%

How many hours per week outside of attending required sessions did you spend on this course?
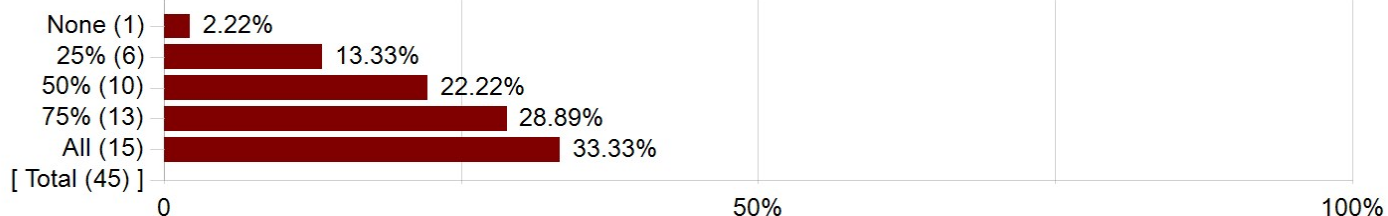
How many hours per week outside of attending required sessions did you spend on this course?

- <5 hours (33) — 70.21%
- 5-10 hours (14) — 29.79%
- 10-15 hours (0) — 0.00%
- 15-20 hours (0) — 0.00%
- 20-25 hours (0) — 0.00%
- 25-30 hours (0) — 0.00%
- >30 hours (0) — 0.00%
- [Total (47)]
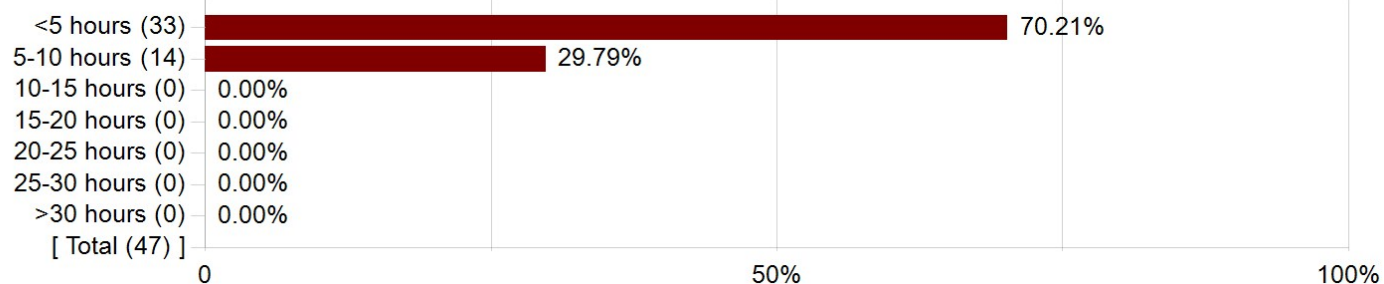
What proportion of classes did you attend?

What proportion of classes did you attend?

- None (1) — 2.22%
- 25% (6) — 13.33%
- 50% (10) — 22.22%
- 75% (13) — 28.89%
- All (15) — 33.33%
- [Total (45)]

Please comment on the level of difficulty of the course relative to your background and experience.

Comments
Not difficult, go to TA office hours
Not difficult at all – great core class.
Very manageable
Biz econ, and it was very easy because it was graded by completion, and the TA helped out with any complex assignments
doesnt need prior experience – the science isnt dumbed down for non–science majors but doug explains it in a manner that is super easy to follow
Assignments were graded on completion for the most part, so the class is incredibly easy to get a good grade in –– if students wish to learn, they can challenge themselves to do so to the degree they see fit. Overall though the content was made accessible to someone with no STEM background.
I loved this course, but if you take it please go to lecture!! It's literally so easy, so just go and listen. Everyone tells you to take this course because of how easy it is, which is true, but the subject is obviously really important and effects everyone on this planet so don't just ignore the course material all together, its super interesting and at times quite depressing.
Not difficult. Highly recommend this class for non–stem majors. Doug is very accommodating and understanding.
Easy
Very hard but rewarding.
This class was more difficult than I anticipated. Homework assignments were fair, but difficult, and it was sometimes difficult to be confident in my answers (for the quantitative problems) before submitting the homework. Relative to the rest of the class, I definitely had much less experience with quantitative economics problems, and struggled. The midterm was also extremely difficult – the quantitative portion was more difficult than any problems we'd had for practice or for homework – a pedagogical choice I have some issue with.
quite easy for non–stem major students
This is a good PHSC course for non–science majors! It's accessible and highly relevant to science news today.
The course content and python lab assignments were decently difficult however we got a lot of assistance and fair grading. The professor and TA's understood that most of us were not too familiar with the topic.
Perhaps the easiest class I've taken at the university all while being an interesting course taught by a passionate professor.
This call was not difficult at all and all the lectures were recorded.
This course isn't meant to be hard. It's truly about learning and understanding climate science concepts and is graded more than fairly.
Not too difficult.
No prior background or experience needed– this course is really for anyone who is interested in the topic!
Felt the difficulty level was perfect for a non–stem major core class. Really appreciated how understanding the Professor was and his acknowledgement that UChicago students are very busy and should receive some grace sometimes.
Great physical science core to take.
Definitely not a difficult class in terms of work (the most frustrating aspect was probably trying to code, but the TAs held your hand throughout it), and so it is worth engaging with the lectures and readings as much as you can, because it is all very interesting!
This class is not difficult. I have very little experience in science (not a stem major), and I found this class super manageable, interesting, and fun.
Very low difficulty, though some background in Python could be important.
Very easy to complete the class activities
The course was not difficult. Take it!