

PREVENTING HUMAN EXTINCTION (2019-2020 Spring)

Term: **2019-2020 Spring**

Subject: **THINK**

Catalog & Section: **65 1**

Course Title: **PREVENTING HUMAN EXTINCTION**

Instructor: **Luby, Stephen**

Enrollment: **101**

Responses Incl Declines: **54**

Declines: **1**

Learning Goals

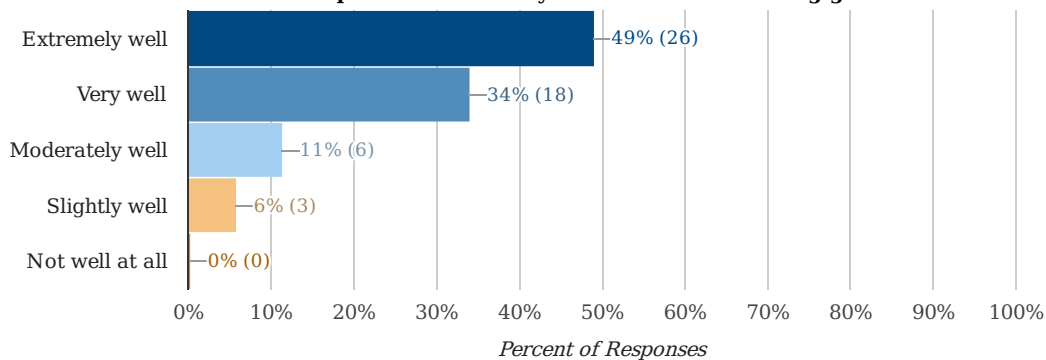
We want your feedback about your experience using the course evaluation system and reporting. To provide your feedback, please click [HERE](https://stanforduniversity.qualtrics.com/jfe/form/SV_cOSKtrVV0G7PTNj) (https://stanforduniversity.qualtrics.com/jfe/form/SV_cOSKtrVV0G7PTNj) to answer one question.

Students are most likely to say their learning goals have been met when

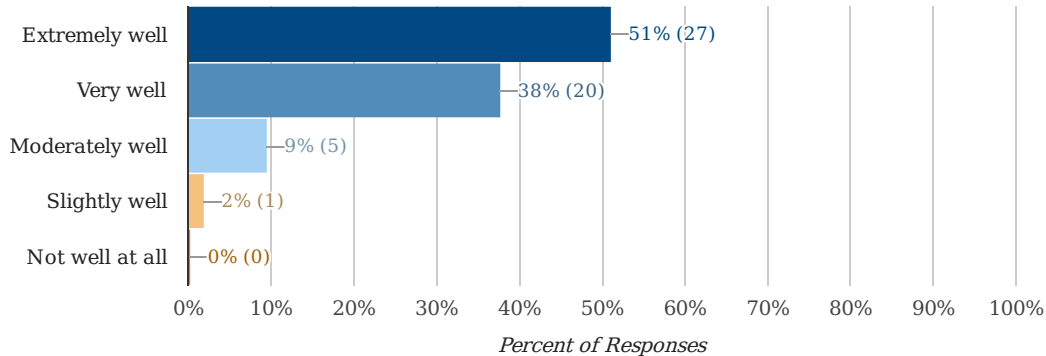
- The goals are clearly articulated in the syllabus and/or directly to students
- There's a clear connection between the goals and the exams, quizzes, and/or assignments in the class
- Students have adequate practice doing work that is relevant to the goals

For information on writing effective learning goals, please see [Writing Learning Goals](https://evals.stanford.edu/end-term-feedback/how-write-learning-goals) (https://evals.stanford.edu/end-term-feedback/how-write-learning-goals).

Students will understand the historical, social, scientific and technical processes that underlie several threats of imminent human extinction or societal collapse. How well did you achieve this learning goal in this co...



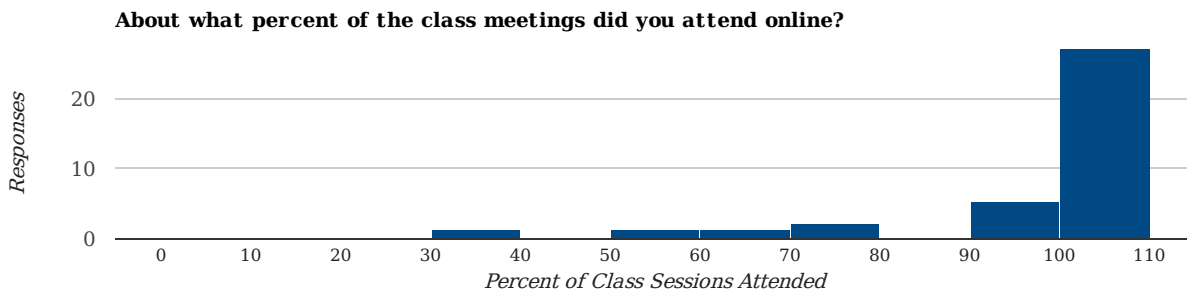
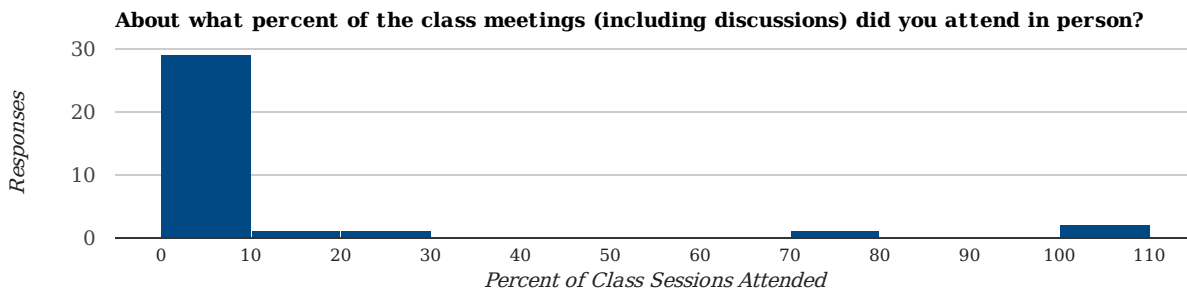
Students will appreciate the uncertainty in forecasting specific events, as well as the human cognitive processes, habits of mind, and socio-political forces that undermine serious consideration of these risks. Ho...



Question	Number of Responses	Response Rate	Course Mean	Course Median	STDEV	5	4	3	2	1
Students will understand the historical, social, scientific and technical processes that underlie several threats of imminent human extinction or societal collapse. How well did you achieve this learning goal in this course?	53	52%	4.3	4	0.9	49%	34%	11%	6%	0%
Students will appreciate the uncertainty in forecasting specific events, as well as the human cognitive processes, habits of mind, and socio-political forces that undermine serious consideration of these risks. How well did you achieve this learning goal in this course?	53	52%	4.4	5	0.7	51%	38%	9%	2%	0%

Note: 5:Extremely well; 4:Very well; 3:Moderately well; 2:Slightly well; 1:Not well at all;

Attendance and Engagement



Student Learning

For information on factors that contribute to students' learning, please see [Interpreting Your Course Evaluation Report \(https://evals.stanford.edu/results/respond-feedback\)](https://evals.stanford.edu/results/respond-feedback).

If you are viewing a report from the 2019-2020 Winter term, quantitative responses to the *How much did you learn from this course?* question in this section have been removed in response to changes in instruction at the end of the term due to the COVID-19 pandemic.

The COVID-19 Academic Continuity Group and school deans have authorized the release of the removed results from Winter 2019-2020 evaluations to individual instructors for their own course(s) upon request. If you would like these results for your course(s), please submit this request form (https://stanforduniversity.qualtrics.com/jfe/form/SV_cwmTY20SiRWXuAd).

No Data.

(34 comments)

Q: What skills or knowledge did you learn or improve?

- 1 How to analyze the impacts of certain cognitive biases on human decisions/behavior.
How some extinction threats are being framed and the research being done on how to mitigate or prevent these risks.
- 2 Critical thinking skills, knowledge about paths to extinction, obstacles to engagement, possible outcomes
- 3 I improved my writing and argumentation skills.
- 4 I improved my ability to think about an uncomfortable situation, and I learned of the benefits of thinking about these situations.
- 5 I developed my writing/critical thinking skills in a topic that I never really thought about before.
- 6 Critical thinking skills improved tremendously
- 7 I learned so much about the problems facing our society today, and how we can attempt to overcome them.
- 8 learned about super-wicked problems and what we can do to confront them
- 9 critical thinking
- 10 critical thinking and analysis
- 11 I improved on my research and problem-analysis skills.
- 12 Knowledge of global catastrophic risks, and some useful ideas for thinking about such problems
- 13 Knowledge of several threats to our future
- 14 I learned more about human extinction pathways and the psychology we use to deal with them.
- 15 Thinking about wicked problems
- 16 ability to consider multiple perspectives, and having engaging conversations
- 17 I thought deeply about the trajectory of the human race and how I might go about kicking the tires. I gained a renewed optimism about my ability to positively impact humanity.
- 18 A few interesting facts about the extinction scenarios
- 19 The knowledge that I gained about global pandemics and synthetic biology was super interesting to me, because I had never learned about them in the past.
- 20 How to think analytically
- 21 knowledge on what strategies we can use to stop human extinction
- 22 I learned to think more effectively about extinction scenarios and to treat them with more seriousness
- 23 knowledge related to climate change, nuclear war, and AI technology
- 24 Critical thinking and the importance of "wicked problems" with "wicked solutions"
- 25 Learned a good amount about 4 threats to human extinction, human biases, and possible solutions to these great issues.
- 26 My critical thinking skills.
- 27 Existential risks and how to go about thinking and finding solutions to them
- 28 Understanding of existential threats and what can be done to prevent them
- 29 Learned a lot about the things threatening human civilization, and all the complexities and what we might do to solve them.
- 30 I learned about AI and the possibilities of nuclear war
- 31 Critical thinking, writing, discussion skills
- 32 I learned how to think more critically. Most importantly, I learned the importance of having uncomfortable conversations. It is so important to address concerns that have dire consequences.
- 33 I learned how to approach a problem from multiple angles. I learned about the threats facing humanity as well as how we might approach these threats.
- 34 Problem solving

Thinking Matters Programmatic Question (39 comments)

Q: The Thinking Matters Requirement is intended to develop your critical thinking ability while engaging you with fundamental questions and complex problems approached from multiple perspectives. In what ways do you think this class did or did not fulfill these THINK requirement goals?

- 1 I think the class gave us a strong foundation for critical thinking by having us explore the political, social, emotional, cognitive, and geological/physical impacts and influences that catastrophic risks can have. Our discussion of these areas also allowed us to engage with fundamental questions like "Should we be preventing human extinction?" and "How do we deal with cognitive biases?".
- 2 This course completely fulfilled the THINK requirement goals.
- 3 This class forced me to think critically about the mere existence of humanity. Overall, this course met its goals.
- 4 This course definitely fulfills these requirement goals because each of the extinction scenarios we discussed are extremely complex. We look at the many factors that contribute to the threat, and we look at the actions that can be taken to mitigate the risk.
- 5 complex problems
- 6 It met the requirements, but I don't think the Thinking Matters requirement is useful. Another ways course would be better.
- 7 I think that this class did an excellent job of being able to fulfill the requirements goals. This was one of my favorite classes this quarter. It really allowed me to try to evaluate complex problems in ways that I have not before thought of or even considered.
- 8 This class fulfilled these goals because I thought a lot about how to overcome wicked problems, and how to approach them from a variety of different backgrounds and lenses.
- 9 This class did fulfill these goals because by the very nature of the topics that were being discussed, in order to be able to fully understand them, one needed to engage with the topics' different aspects.
- 10 N/A
- 11 This class accomplished the THINK goals by doing a detailed explanation of how to address and possibly resolve wicked problems. Before this class, I didn't know how to begin to address these types of problems.
- 12 Did well at approaching complex problems from multiple perspectives. Promoted critical thinking, but perhaps this aspect could have been deeper--more philosophy?
- 13 I got a better idea of the difficulty of dealing with complex problems, and how intuitive solutions may have several unforeseen problems
- 14 There were definitely complex problems of extinction, and critical thinking was emphasized in section meetings.
- 15 It forced me to engage with an inherently uncomfortable topic, and do so in a nuanced, pragmatic way.
- 16 Lectures did an amazing job of portraying multiple sides of the argument, and then using section to reinforce it
- 17 Fulfilled in all ways.
- 18 Technically speaking, this did occur, but I found the course too broad to be engaging and the amount of time we spent on each extinction scenario was too brief for me to deeply consider it.
- 19 The class really helped me think about complex or "wicked" problems, and the course matter definitely helped me engage in meaningful discussions with my peers.
- 20 I think this class made me think about thoughts that I never considered and I am now more cautious and think more analytically.
- 21 Gave a great explanation of the challenges and section did a great job of engaging us.
- 22 This THINK course taught that there are numerous facets to the problem of anthropogenic risks of extinction and that there is no simple solution.
- 23 The teachers of this course were great. They did everything they could to keep students engaged and learning despite recent events. The nature of online format and outside circumstances made learning a bit difficult, but this was not the fault of the teachers.
- 24 I think the course helped me develop critical thinking skills to an extent, but I feel like there could have been more % of the course dedicated to work towards approaching complex problems
- 25 This class definitely fulfilled these requirements.
- 26 Lecture did a great job addressing these issues but it is difficult due to the lack of conversation available over zoom
- 27 I think the class fulfilled these goals by presenting a lot of information on the subjects we discussed and a lot of different perspectives on these topics. I also thought the class' discussion sections allowed me to learn about different perspectives from my classmates, which was very enlightening for me.
- 28 Section really helped in developing my critical thinking abilities.
- 29 I think it fulfilled these goals by adding sections.
- 30 I think this class did well in teaching critical thinking and getting me interested in learning more about topics that really matter.

- 31 This class had a lot of critical thinking and really asked us to engage with the lecture material rather than just expecting us to memorize it. I really appreciated the emphasis they put on what our opinions are with polls and time for questions.
- 32 Definitely fulfilled these requirements in a super interesting way. Really enjoyed learning about something so important and relevant.
- 33 The class helped provide different texts and resources to help students educate and familiarize themselves with issues pertinent to Earth
- 34 By having only a few pathways to learn about, it allows students to pick which one they are most interested in and research about the issue.
- 35 By discussing extinction events, we definitely exercised our critical thinking muscles, pulling in multiple disjoint variables and synthesizing them.
- 36 This THINK course has planted these thoughts in my mind. Not a day goes by that I don't think about at least one of these extinction scenarios. I have a newfound appreciation for those who do the work to address these unlikely, but plausible events.
- 37 I considered many different perspectives
- 38 This class really helped me develop skills to think about an issue from different approaches, as this issue was discussed and analyzed from a scientific, social, political, and historical lens.
- 39 Made me understand that it is okay to disagree with the professor.

Instruction and Organization

For information about effective teaching in a variety of contexts, please see Teaching Strategies (<https://teachingcommons.stanford.edu/resources/teaching-resources/teaching-strategies>).

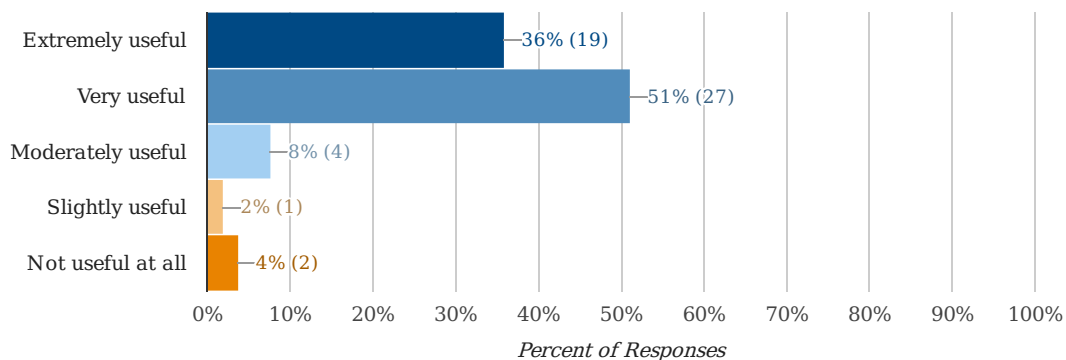
If you are viewing a report from the 2019-2020 Winter term, quantitative responses to the *Overall, how would you describe the quality of the instruction in this course?* and *How organized was the course?* questions in this section have been removed in response to changes in instruction at the end of the term due to the COVID-19 pandemic.

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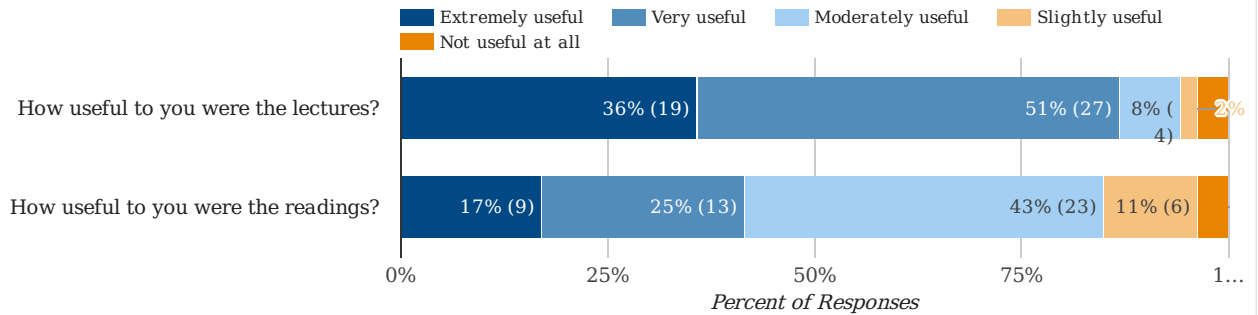
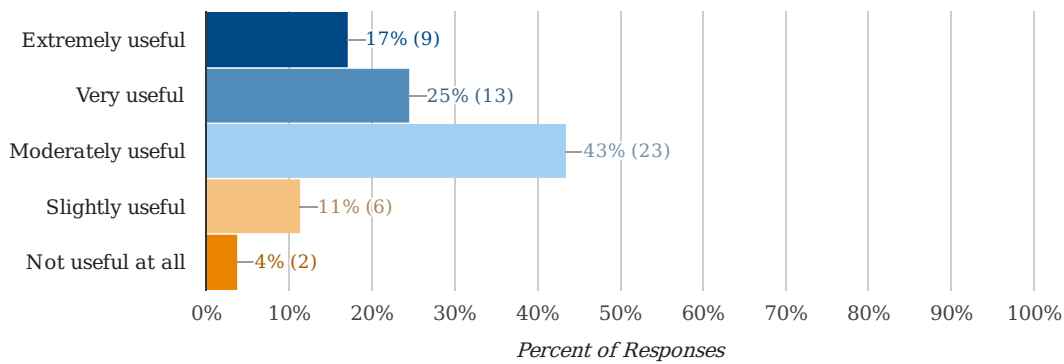
No Data.

Course Elements

How useful to you were the lectures?



How useful to you were the readings?



Question	Number of Responses	Response Rate	Course Mean	Course Median	STDEV	5	4	3	2	1
How useful to you were the lectures?	53	52%	4.1	4	0.9	36%	51%	8%	2%	4%
How useful to you were the readings?	53	52%	3.4	3	1.0	17%	25%	43%	11%	4%

Note: 5:Extremely useful; 4:Very useful; 3:Moderately useful; 2:Slightly useful; 1:Not useful at all;

Additional Student Comments

Answers to this question will be viewable by the Stanford student community four weeks after the release of reports to instructors. If you have a question about a comment, please review the guidelines under "Questions or concerns?" at <http://evals.stanford.edu/results/respond-feedback> (<http://evals.stanford.edu/results/respond-feedback>) and write to VPTLevaluations@stanford.edu (<mailto:vptlevaluations@stanford.edu>).

(43 comments)

Q: What would you like to say about this course to a student who is considering taking it in the future?

- Very interesting class! The instructors seem very well-prepared and passionate about the subject. It can get a little depressing at times because you're asked to envision and argue for a path to human extinction
- A great course that provides engaging and challenging material.
- I think this is a solid class. To be fair, it can be depressing, but both professor are optimists at heart. The workload is very minimal.
- I would strongly suggest that the student takes this class. I learned a lot about possible extinction scenarios, and I have learned about steps that can be taken to mitigate the risks. It is a really interesting class because it allows you to dive into a subject you probably hadn't thought much about.
- Very interesting class! Can get a little grim, but also inspiring.
- It's good for a THINK course and it's not much work, but the THINK requirement kind of sucks in general.
- More work than most other THINK classes

- 8 Absolutely take this course, you'll have so much fun and the concepts that you learn will help you break down complex problems in the future.
- 9 This is the one of the best courses I have taken at Stanford. Super engaging, great teaching, and fascinating material.
- 10 Would definitely recommend taking this course, its content is very relevant to today's global events. However, don't skip the readings. They are essential to getting the most out of section.
- 11 Take it and enjoy the lectures!
- 12 Highly recommend, very informative and helps streamline ones's personal goals with the demands of our threatened civilization
- 13 Absolutely take this course! I had no exposure to this topic, and this course tackles some very important questions in the world
- 14 Good overview of a very important topic! Offers lots of useful facts and concepts for thinking about human extinction threats, as well as opportunities for pursuing work in these directions (i.e. save the world) (e.g. SERI). Didn't feel very demanding, intellectually--you can get a lot more out of it if you go for more than doing just what's asked of you.
- 15 It's a good choice for the think requirement
- 16 The readings can be long, so set aside appropriate time to do them.
- 17 Take it. I think its one of the most interesting THINK classes that stanford offers.
- 18 really interesting course with very relevant information. great professors!
- 19 This class should be mandatory for all Stanford students.
- 20 Don't. It's not a very well-structured or focused course. I did not find it all that useful in stimulating profound thought.
- 21 Definitely take this course! The professors really care about their students, and although the subject matter can be a little depressing at times, it's really interesting information to have. The course also isn't too time-intensive, and you get a lot out of it.
- 22 Do the readings
- 23 Do the readings
- 24 The teaching staff are great! They are knowledgeable and easy to engage with.
- 25 Do not take this course during a pandemic- bad decision. We just talked about pandemics and other pathways to human extinction every day, which got depressing give our current situation. Also, only take if extremely interested in the topic.
- 26 This course is a little hard to engage with for me in an online format and is reading-heavy but the instructors care about their work and it is interesting to cover many topics in one quarter
- 27 Awesome course but readings can be a bit time intensive for a think course.
- 28 When writing assignment there is an opportunity to be creative, but it is extremley important to have evidence to support your scenerio and be specific as possible
- 29 Take it if it sounds interesting to you and /or are concerned about the future of the human population! Some of the readings may be long but you get more out of the class if you do them and engage with the material more.
- 30 This is a great think class. The material is very interesting and the readings are fun and helpful for papers.
- 31 You can develop your critical thinking skills.
- 32 Definitely take this course! It is super interesting and you will definitely learn something new. The topics covered are really interesting and the lecturers are super engaging and nice. The structure of the class is also super helpful because each writing assignment builds off the one before it making it feel like you are really just writing one essay rather than multiple separate ones.
- 33 It's a solid THINK class. The subject matter is engaging and the readings are really interesting, and generally manageable. The professors are clearly passionate and it comes through in their lecturing as well as the extra opportunities and events they told us about.
- 34 If you are genuinely interested in the topic, take it. The lectures can be a bit dense, as there are multiple different pathways to extinction that the lecturers want to cover, and so many complex systems that it may be hard to keep up. In addition, there is a lot more work you have to invest in this THINK course than others, with respect to the final paper. It is an interesting subject, but was personally too much for me to completely and profoundly absorb all the information in 10 weeks.
- 35 Extremely important material that everyone should be exposed to. Really displays the bigger picture of how most other things don't matter if humans go extinct.
- 36 A great class to learn about how you can help the world
- 37 I would definitely recommend it.
- 38 Take it, easy and interesting
- 39 This class changes the way you perceive the world and human behaviors.
- 40 This course is fairly interesting and makes you consider many different viewpoints. However it is slightly boring, but it is easy and there is not that much work.

- 41 Probably the best Think course you can take! This course is well balanced between gaining knowledge on the topic and learning how to think about problems . This class is meant for everyone, and both Professor Luby and Edwards really strive to teach their students that no matter what your field of study or planned career, you can use your expertise to contribute to the survival of the human race.
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- 42 It is very interesting and the professors are great lecturers
-
- 43 Amazing Class!!!!

(16 comments)

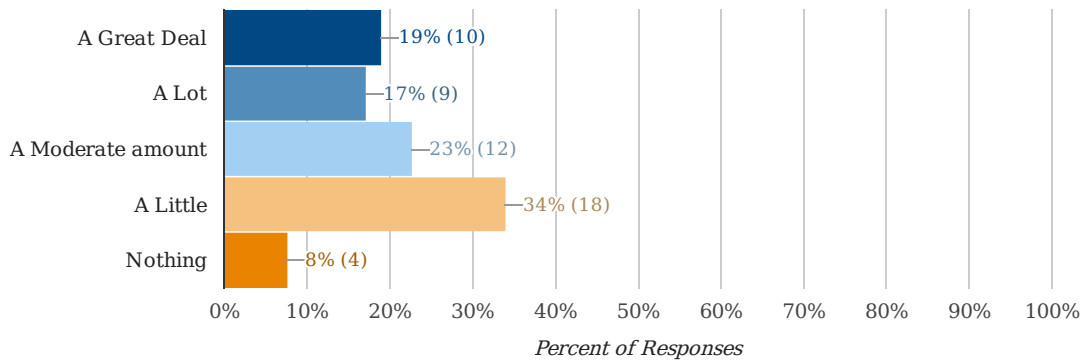
Q: Would you like to provide any other comments about this course?

-
- 1 N/A
-
- 2 no
-
- 3 really great class! thank you for all the support and effort!
-
- 4 Thank you! This has been one of the most enjoyable courses I took this year.
-
- 5 Thank you for a great course!
-
- 6 Really interesting and I feel that everyone should learn about this
-
- 7 NA
-
- 8 Both professors did a great job transitioning to online lecture and I really enjoyed this class this quarter. Due to the circumstances of this class everything we learned is relevant to current issues.
-
- 9 N/A
-
- 10 Really enjoyed the course.
-
- 11 I loved this course
-
- 12 Great course!
-
- 13 Both professors were amazing and did what they could to make this class as interesting as possible.
-
- 14 n/a
-
- 15 N/A
-
- 16 No

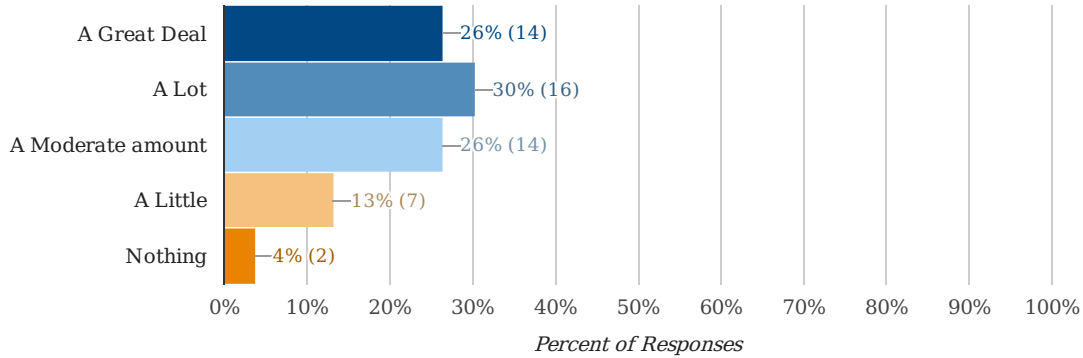
Instructor Added Questions

Close-Ended Questions

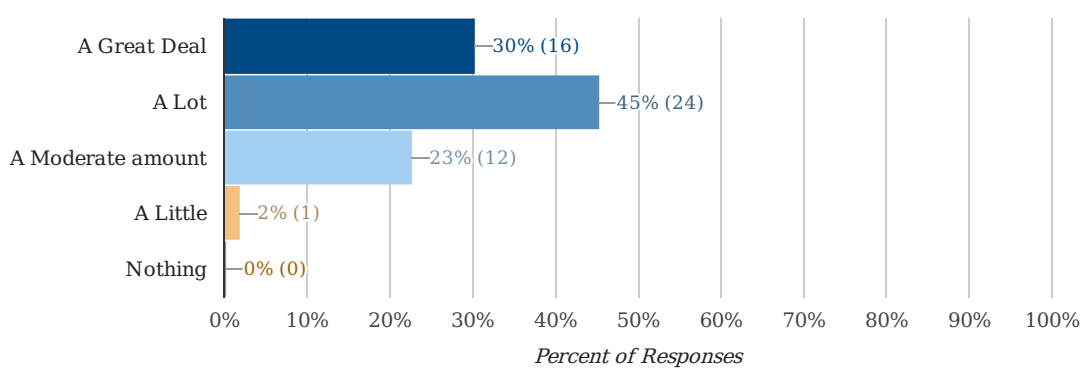
How much do you feel that learning from lectures was compromised by conducting the sessions over Zoom?



How much do you anticipate that you will use knowledge and perspectives gained in this class later in your education and life after graduation?



How much of the material covered in this class was new subject matter for you?



Open-Ended Questions (98 comments)

Q: What was the best part of the lectures?

- 1 The variety of evidence given to support specific claims about the categories of extinction risks, as well as about cognitive biases and ways to thinking about solving complex problems.
- 2 Engaging material and presentation from the instructors.
- 3 Being able to pick the brains of our incredible professors.
- 4 I really enjoyed the polls.
- 5 hearing questions
- 6 I loved going into detail of the different scenarios.
- 7 The flow of lectures always felt natural and they were always very entertaining to watch.

- 8 I really enjoyed polls and the layout, as they were all very organized and well thought out.
- 9 the content, it was diverse and always very informational
- 10 Learning new things
- 11 the polls
- 12 I enjoyed the videos or graphs that visualized any statistic or study we talked about. I also loved the polls because it kept me engaged during class.
- 13 They raised concepts and facts useful for thinking about preventing global catastrophes
- 14 The ones on AI
- 15 My favorite lectures were about the less recognized extinction pathways, as they were new info.
- 16 Real-time engagement and statistics with polls.
- 17 the multiple perspectives
- 18 The professors are both fantastic lecturers and very good at making quality slideshows. I wish all my classes were this good.
- 19 I liked the polls! It was interesting to see what my classmates thought.
- 20 I liked the big picture ideas that lead to extinction
- 21 I really enjoyed that all of the pathways to extinction were thoroughly researched and discussed.
- 22 I really appreciated the opportunities provided to students to pose questions
- 23 polls and questions to the audience
- 24 Lecture was structured extremely well and the material was interesting and engaging
- 25 I enjoyed learning about the pathways a lot more than cognitive biases. I also really enjoyed the polls.
- 26 The parts that gave examples in the real world
- 27 I really liked the polls
- 28 Breaking down these huge problems to their basic elements and really examining the details. It was fun to look at nuclear war not at the surface level but to really go into what what would look like, down to expected temperature and agricultural productivity changes.
- 29 All the different scenarios presented and why they are all so complex.
- 30 Learning about new things that I would not have thought of that contributed to preventing human extinction
- 31 The cognitive biases part was the best.
- 32 The clear direction and discussion of material. Easy to follow along.
- 33 The professors put so much thought into the lectures (i.e. image choice, brief but thorough explanations). I also enjoyed the professors sharing their first-hand experiences with these scenarios (i.e. Nipah virus research, nukes).
- 34 The utilization of polls to get a sense of how the audience feels on a particular question, and how those views change throughout the lecture.
- 35 The pandemic lectures were interesting
- 36 Super cool topics and new perspectives

Q: How might lectures be improved?

- 1 This also ties into the readings as well, but I felt that AI was given a lot less of a thorough exploration than the rest of the categories of extinction risks, especially compared to climate change. Most of the readings and lectures in the 2nd half of the course heavily mentioned climate change examples/situations, and I feel like AI wasn't given the treatment as a topic the way it should have
- 2 N/A
- 3 Speed them up and maybe do not focus too much on the small details of a certain biological process.
- 4 The inclusion of short videos might make the lectures more engaging.
- 5 More student engagement, but I feel like students weren't really engaged because it was an online lecture so this problem might be fixed once the class happens in an in person setting again.
- 6 I think from the get go encouraging questions needed to be more effective. By the end everyone was just used to there being few to no questions, so from Week 1 letting people know they can ask questions at any time would have been key.
- 7 Make slides more organized and structured so its easy to refer back to them
- 8 more time should be allocated for student participation

- 9 I think that having more polls over Zoom would help this class be more engaging especially with Zoom fatigue etc.
- 10 I often find lecturers especially engaging when they are highly expressive about their enthusiasm. These lectures might benefit from more of that.
- 11 More student engagement beyond polls
- 12 maybe try to cover less material to be able to focus more on important topics
- 13 Spend more time on each extinction scenario. Human extinction is too broad. Focus on one, or maybe two scenarios so we can really get a scope of the destruction that might occur.
- 14 I think the teaching team did a pretty good job moving the course to a virtual format.
- 15 More interactive
- 16 NA
- 17 more engagement with listeners or multiple mediums than just a powerpoint presentation
- 18 under the circumstances I think lecture was executed very well
- 19 Increasing engagement with students somehow online would help I think. Maybe doing more mandatory polls, including videos, or asking for students to participate more might help.
- 20 More interactive if possible
- 21 By making the lecture quizzes easier
- 22 Maybe having less information on the slides or just more consolidated. It was sometimes a lot.
- 23 While they're online, more detailed slides.
- 24 Some details were a little bland, although most weren't.
- 25 Learning the right name(s) for groups of people, like Native Americans or Indigenous Peoples instead of Indians
- 26 Review of previous content / reflection on other areas of extinction not covered.
- 27 Adding more interactive pieces (i.e. more polls).
- 28 More videos and have the lectures discuss the readings more.

Q: What might you have done to get more out of the class?

- 1 Take time to read more of the additional readings offered to us.
- 2 N/A
- 3 If I was able to attend section in person.
- 4 I never asked questions during the lectures. During the lectures, I could have been more aware of any questions I may have had, and I could have asked them.
- 5 pay more attention to the readings
- 6 I think discussing more with other students would've been more helpful for thinking about these issues, but this would be facilitated by having in-person classes again.
- 7 Speak more with the professors
- 8 Not caring what other people were doing and asking more questions in lecture.
- 9 I would have pushed myself to ask more questions during lecture
- 10 staying apace with both the lectures and reading materials
- 11 Done more of the readings.
- 12 Finished the optional final paper
- 13 Done more of the readings
- 14 Spent more time on the readings, though I'm not sure how much my experience was impacted.
- 15 Be very on top of the readings (current events made this difficult)
- 16 participate more in section
- 17 I think I would've gotten a little more if I had spent more time on my paper. Writing papers is really weird—there is always a mental block to doing it but once you start it is a very cathartic method of thinking.
- 18 I could have probably cared a bit more about the lectures.

- 19 I should've engaged more during lecture.
- 20 Do more readings
- 21 Done more of the readings
- 22 I should have spent more time on the class readings
- 23 Attended more lectures and paid closer attention
- 24 Tried to stay more engaged
- 25 Done my own outside research to find material related to what we were discussing in class.
- 26 Asked more questions during lecture
- 27 Read more on my own.
- 28 Tried to not take as many notes and listen more to the lecturer
- 29 I dropped off on the readings about halfway through since they weren't required to understand lectures. The ones I did do definitely enriched my understanding, though, so I would have done more of them.
- 30 Focused a bit more during the lectures, it's just hard when you're staring at a screen all day.
- 31 Ask more questions
- 32 Including movies to watch that showcase the extinction scenarios.
- 33 Been more proactive about reading before the lectures.
- 34 see above.

Interpreting these results and deciding what changes you might want to make in your course can benefit greatly from a conversation with a colleague and/or a teaching consultant. To discuss your course evaluation feedback with a consultant in the Office of the Vice Provost for Teaching and Learning, please click here: [Course Evaluation Consultation Request Form](https://stanforduniversity.qualtrics.com/jfe/form/SV_eEcR99HdhguiH0d) (https://stanforduniversity.qualtrics.com/jfe/form/SV_eEcR99HdhguiH0d)