

Note: lettered responses represent the same individual across the questions, so that all “a)” responses come from the same person, and so on.

1. Start with an evaluation of yourself. What were your personal goals in taking this course? Did you achieve them? How would you have proceeded differently if you were doing this course again? What have been your major personal obstacles to learning more from this course?

- a) I wanted to explore a unique method of teaching which, as an undergraduate, was completely alien to me. I have definitely embraced the process, and have been able to connect with topics that truly and organically interest me. The one thing I wish I put more effort into was the work outside of the class. I was overwhelmed with a lot both academically and personally this semester, and while in class, I was completely engaged and eager to participate, collaborate, and learn. Outside of class, I found myself unable to dedicate the time that I wish I could have dedicated.
- b) Overall, I think my personal goals included understanding broad connections between science, education, and policy. I had very little knowledge about creating influence in policy, and the influences policy has on science before beginning this course. I did achieve my goals, and even was able to delve deeper into specifically grassroots movements than I expected. Personal obstacles included unexpected work difficulties and health issues.
- c) Honestly, I didn't have any goals at the start of this course. I was plopped here last minute. Everything I gained from this course was gravy, far as I am concerned. I would've proceeded differently if I'd had a plan in place to take this course, but all's well that ends well. Personal obstacles would include incredibly difficult working conditions at my day job, holding down a second job, breaking up and kicking out my boyfriend, finding a new job, and trying to balance everything while getting sick and having several incidents where my asthma got the best of me.
- d) In taking this course, I wanted to build upon my experiences (which are all relatively recent/fresh) in science diplomacy, connecting science to policy. I didn't know much about the intersection of these fields but had been fascinating meeting people who identified as science diplomats and learning about the work they did. I definitely think that I achieved my goals in terms of expanding my definition/views of how science and policy work together, and exploring a variety of cases that I wouldn't have otherwise thought of in terms of science and policy. If I was doing the course again, I would have spent more time reflecting on and incorporating the ideas from the mandatory readings into my work. I largely focused energy on the PBL products themselves and I think supporting readings and theory would have helped me more.
- e) I did achieve my goals in becoming more vigilant about situations, especially my own strengths and weaknesses, as well as my current mental and emotional capacity in life all together.
- f) I jumped in sink-or-swim style under the burden of a course overage that was beyond an overage and while I believe I have managed to satisfy the requirements, it's been just barely and not to the ability or standard I would have liked had I not undertaken so much across the board academically in addition to all my personal affairs. I believe that I am capable of better production, but given the circumstances I have done what I could and hope that it meets the requirements of everything I intended it for. (Colloquium requirement for honors, entry/intro/familiarizing with/into accelerated MA, the course for the course itself)
- g) My personal goals in this course were to extend my professional development in the field of education. I wanted to re-engage in learning at the graduate level. I wasn't familiar with the process of project based learning before joining the course and although I found it challenging, it was very rewarding because I was able to build on my existing knowledge, but also take risks to inquire on topic that were uncomfortable or unfamiliar (politics, climate change). It turned out that working in collaboration with

people from so many different educational and professional backgrounds provided a richness to the course that I hadn't experienced in the past.

- h) My personal goals in taking this course were to actively engage with each PBL case for the semester while expanding my knowledge and interest in the topics. I felt that I was able to be more engaged with some PBL cases than others. If there had been more time to explore the topics or perhaps one less case, I think I could have accomplished this goal. I was definitely most interested in Case 2, civil society engagements, because this is an area that I would ultimately like to have a career in or at least learn more about. I also had the challenge of my work interfering with my participation in the course. I had to travel pretty much every week and that really affected my ability to be active and present for every session and every assignment. If I could take this course over, I would do it during a time where my work was less chaotic. I think time was the major obstacle to learning more from this course.
- i) I entered this course wanting to develop a better understanding about the intricacies of science and political change. I managed to achieve this by exploring case studies that highlighted the dynamics that influence outcomes and decisions in the scientific field, and from the in-depth discussions throughout the course. If I were to redo the course, I would improve my science literacy as it was one of the obstacles that prevented me from being fully engaged. I encountered some difficulties in appreciating the topics of my coursemates as it was more scientifically complex .
- j) My goals in the course included 1) getting a feel for what masters-life was like 2) thinking more deeply about complex issues related to science and politics and 3) learn how science went from novelty to near-religion. I definitely achieved goals #1 and #2. I developed a feel for the pace and work required for these courses and also thought deeply about topics under the umbrella of scientific and political change. I particularly enjoyed the nature trail project as it allowed me to examine a part of science/society over time. As for goal # 3, while I definitely got a better understanding of the relationship between science and society, I still feel like I'm missing a larger historical picture of how that relationship has revolved. I would say my major personal obstacles have been 1) embracing the freedom to choose in the course (can feel overwhelming) 2)digesting the reading material (found it difficult to get through).

1. Self-evaluation (continued). What have you learned about what you have to do to make a course stimulating and productive (with respect to the format of this course: face-to-face, online, hybrid)?

- a) I found that researching and inquiring into topics that truly interested me was the most fruitful method of learning that I have been exposed to. The format of the course which allowed for productive collaboration was especially helpful in making connections and bouncing around in-progress ideas.
- b) Having a set, clear syllabus is a must for me. I appreciate the clarity from week to week in order to stay productive and engaged with weekly meetings. Also, the accommodations for missing part of class were helpful and manageable.
- c) I need to participate more. I need to find the time to participate more. Hopefully that will get better now that I'm quitting my side job.
- d) I was so grateful to continue forming relationships with classmates through this class, and that was what helped to make this course most stimulating for me - connecting both inside and outside of class, and brainstorming together or at least being moral support. I also found that I was most successful when I chose topics of interest to me for the focal points of my PBL work. I struggled a bit with the first PBL because I was doing something that I thought was a good fit with the overall direction/guidelines of the instructions; however, I enjoyed myself more on future PBLs when I didn't look at those as limitations but rather explored connected themes that had relevance to me - it didn't feel nearly as much like "work" when I sat down to do the assignments.
- e) Note taking and free writing is super helpful for me. I always have a checklist going every week that helps me make sure I am on track with my work.
- f) Be well fed, well rested and well prepared, like anything else in life. Except this really put that theory to the test. It was an amazing first experience and intro for me to the online/hybrid option and I am really excited about what that means for me personally in the future going forward in the program.

- g) I learned that I need to take a delicate balance between researching topics that I already have a lot of knowledge about and ones that I feel that I am at a novice level. There were some PBLs that I learned from the mistake of taking on a topic that really felt too broad for the scope and time frame of the course. The breakout sessions were especially helpful and connecting with some of the classmates outside of the classtime was a great support as well. It wasn't required, but I found it helpful to communicate by text message with another person just to check in on the course and get feedback.
- h) I think attending every class really helps. For the few that I missed I found it hard to just try and catch up by listening/watching the recording. I wish that I had been able to be apart of the discussion and actively engage. I also really enjoy all the breakout group discussions and work, these helped me develop my project ideas into what they were. Being on the younger side, it was great to receive input from my peers who were more advanced in either the CCT program or their lives in general.
- i) I was able to appreciate the course better towards the end as I became more familiar with the format and expectations. Looking at the past work of other students helped to guide my work and topic of inquiry.
- j) Being prepared by reading and completing assignments helps create meaningful participation in the class sessions. Putting away distracting objects (phone/websites) during the class encourages presence. Reminding myself why I'm taking the course and what my goals are help me stay focused and motivated. Probably the biggest contributor to productivity was to continuously check the syllabus to make sure I was up to date on requirements and assignments.

2. General Evaluation of course. What was special about this course (+positive and/or -negative)? How did the course meet or not meet your expectations? In what ways do you think this course could be improved?

- a) The course was excellent, the professor was knowledgeable, engaging, and down to earth. The environment made it feel like the instructor was learning with us, and it felt like very honest communication and evaluation. I think that this course could possibly offer different PBL topics in addition to the ones already taught, so as to engage as many people as possible in coursework that meant something deeper to them.
- b) Positive: Having so many perspectives in interests, presentation formats, and feedback angles was conducive to learning that took many forms. Negative: In comparison to 650 Mathematical Thinking, I really enjoyed dedicating a portion of the class to discovering something together, which was absent in this 749 course. I felt like we were each on a separate page the entire time.
- c) + I love Peter's teaching style and how he interacts with students and isn't afraid to share his life and stories as they apply to topics we're discussing. -I think the course moved a little too quickly and we could've done well with just 3 PBL units at 5 weeks a piece, as opposed to 4 units with only 3-4 weeks each.
- d) The PBL format and open-endedness of the projects was unique. The final PBL where we each got to facilitate an activity in the hybrid environment was amazing! It also gave me an appreciation for what the instructors face as challenges when dealing with people both in the classroom and online. In terms of how this course could be improved, I think that it is already a strong course, but could possibly be improved with a wider variety of supporting materials and not just academic readings - e.g., are there topical videos or multimedia that would support our learning? What about a guest lecturer? I also would appreciate greater cross-dialogue on the blog or other online platform so that we can share ideas with peers and actually get some conversation there.
- e) Blog posts were not a good use of my time to be honest, it was more like busy work to me. I did enjoy the challenges of this class though!
- f) This course was really very special and opened up a new way of learning for me, which is very exciting. I am fairly well versed in traditional course delivery, expectations/outcomes, stringent and inflexible parameters, etc and the way this broke down those barriers really accelerated my personal learning processes and helped take things to a new level for me academically speaking. My only desire for an

improvement could be providing more opportunities to collaborate as a group to help keep those of us who get lost in the freedom, from straying too far. This would have been of great benefit to me.

- g) This class met and surpassed my expectations. I really did not know what to expect at the beginning, and found that the inquiry was motivating and that I learned a great deal. Sometimes I found it difficult to judge whether I was “doing a good job” throughout the course. I knew I was putting in the recommended time (at least 6 hrs per week), and learning what I felt like was a lot. But, I wasn’t always confident.
- h) This course was special because we had the freedom to explore topics that were personal to us. This made engaging with the research and information more manageable. I actually wanted to conduct research and create a great final product. However, it was difficult that the cases were so broad. Because of that it did take me a while to pin point an idea. Like I had mentioned I think either lengthening the PBLs or decreasing the amount could really help because we would be able to devote more time and energy to a certain topic.
- i) The course was unique in its format that was condensed and fast-paced. While it did feel overwhelming at times with the required readings and PBL products, I realize that the continuous reading and writing assisted in the momentum of my inquiry and allowed me to develop a depth to my comprehension. What I would suggest is to encourage students to connect more with one another as this would provide a good support system and to avoid being left behind.
- j) I really loved the different ways we explored the topics of our choice. I felt like the “boxes” we were given for each PBL were just small and just large enough to encourage creativity while still providing structure. Sometimes I wish that the readings had been more focused. If given a 30-40 page reading assignment, guiding questions would have scaffolded my weak research-paper-reading skills. Also perhaps a “why” behind the choice for the reading each week.

2. General evaluation (continued). In what ways did your attitude to doing the course change through the semester? How does it compare with other graduate courses? What would be your overall recommendation to prospective students?

- a) This is my first graduate course, being an undergraduate, and I would definitely recommend this course to anyone who is able to take it. It has provided a refreshing way to learn that has invoked a sense of curiosity that I feel can sometimes be lost in an undergraduate program.
- b) I recommend making a buddy in class and being able to share thoughts about the good and bad you may be experiencing outside of classroom interaction.
- c) I had so much personal stuff going on this semester that I couldn't be bothered to do any extra participation no matter how good my intentions. I don't think this could've been changed by the course design or the instructor. I would suggest to students that they need to be able to devote a serious amount of time and attention to this class and if they can't, they need to figure something out with the instructor.
- d) I feel like this was a course I was continually interested in and was surprised at the assignments (in good ways!) - at how they challenged me and stimulated my thinking in different directions. I would recommend this course to prospective students and also tell them to explore themes of interest - and not to be afraid of office hours - I got lots of great clarification and support through that, and by connecting with others in the class.
- e) By the beginning of March, I felt like I was getting the swing of things in this course. I appreciate the structure of each unit, and know what is expected of me by the next week, or two weeks, etc.
- f) It did not change. I was excited at the beginning and am equally excited for my own future in the program, but also for new students who will take this course in the future. My recommendation for other students would be to enter like a boy-scout and BE PREPARED! Really familiarize with the material and subject matter before anything even really begins, and explore ideas before they need looking into..
- g) My attitude became more positive and confident as the course went on. At the beginning, project based learning was new to me. I learned about my own capacity and what I can accomplish in the time given for an assignment. I have never taken a graduate course online before and I have never taken one like

this. I would highly recommend this course to future students. My advice to them would be that if they follow the guidance of the instructor and put the work and time into the course, it will be a very meaningful and rewarding experience .

- h) I think my attitude to doing the course fluctuated. There was more enthusiasm for some cases than others. I think for the first case I was unsure of what I wanted to do/how the course was going to go so I was not that confident in my research, making me less excited to complete the case. However, for case 2 I really dived. For case 3 I was back to the uncertainty just because I wasn't sure what exactly was wanted for the case. And then I really enjoyed case 4 because it was interactive. I think this course is different from others simply due to all of these projects that we are developing. My recommendation to prospective students is to take the course! But also ensure that they have the time to dedicate to it. You will be disappointed if you try to coast through the course because you can really grow and gain a lot if you put the effort in.
- i) Being overly conscious of your work would affect your ability to keep up with this course. Because of the different themes that is explored in a single course, it is important to reach out and ask for the feedback you need early in the draft product. Compared to other CCT courses, this was more research-heavy but it provided the tools for reflection and inquiry that can be applicable in many other situations.
- j) I was full of enthusiasm and excitement at the beginning of the course, and for the most part that maintained. About 2 months into the course, however, I was dealing with making some pretty big life decisions and my attitude shifted from excitement to determination to finish. While I was still enthusiastically learning, the course became something on the checklist rather than something I explicitly looked forward to. Since this is my first semester in graduate school, I don't have much to compare to, except that it has a bit less collaborative/group work than Thinking Learning and Computers. For prospective students - embrace the freedom at the outset and don't be paralyzed by it! Meet with the teacher on a regular basis to clear up any confusion or boost your confidence. Create friendships with the people in your class.

3. Evaluation in relation to the course description. Read the course description/goals below. Comment on how well the goals expressed in the syllabus were met. Make general and specific suggestions about how these could be better met.

Learning Objectives: By the end of the semester, you will have:

- 1. learned about analyses of the political influences on the development of science and technology, and, reciprocally, of influences of such developments on political processes and possibilities;*
- 2. re-engaged with yourselves as avid learners and inquirers; and*
- 3. organized resources that prepare you to teach and engage students and members of the relevant communities to participate in questioning and shaping the direction of scientific and social changes.*

- a) The goals were met very well, and i feel like the course was designed to address these goals perfectly.
- b) I did miss focusing on a topic/lesson that brought everyone together succinctly. As mentioned, I feel like everyone was off doing their own thing and deeper learning may have blossomed from cutting 4 PBLs to 3, and adding specific cases or studies to bring us together every few weeks.
- c) I had a really hard time explaining to people what this class was about and what we were learning. Looking back, these things are exactly what we learned. It's difficult to articulate what you learn when you're learning fairly abstract skills as opposed to concrete facts and processes.
- d) The first two goals above are quite broad and I do feel that we addressed them over the course of the weeks, in particular, as an inquirer as the projects necessitated that we explore themes and be self-motivated in terms of seeking out information, new lines of inquiry, and educating ourselves and others. The third goal, re. organizing resources for teaching/engagement, was more explicitly addressed through PBL4 (although perhaps the intention is that the resources and info we collected for PBL1-3 were also for educating others). One thing that I think would have been interesting is to somehow have a class or two that would tie the themes of PBL1-4 together and challenge us to analyze and synthesize the topics presented there. What next steps do we envision? How can we connect the dots - and what, for example, might a "PBL5" look like? These would just be fun questions to provoke further thought and help us to

see how we have addressed these learning goals - and how we situate ourselves in shaping the direction of scientific and social change.

- e) I can see how my thinking was in many places in the beginning of the semester, which makes a lot of sense. I am aware of that, and have slowly learned to focus in more.
- f) As expressed above, this class was invigorating for me as a student. I have learned a great deal across a myriad of learning topics, both as an ends unto itself and about the topics of our studies. The only way to improve would be to provide more interactive experiences between learners and maybe a more guided walk-thru of the syllabus as it is very different from traditional or typical syllabi in undergrad studies.
- g) The course went beyond the written objectives, depending on the path each learner chose, but all of the assignments aligned with being able to analyze science and policy, engage in inquiry, and connect with the community.
- h) I think that the connection between political influences and the development of science and technology could have been stronger. I'm not sure if I fully met this point. I think that my personal interests may have overshadowed the course objectives a bit and the political aspect was pushed to the side. I think just having a constant reminder, whether in blog post feedback, peer commentary, or WIP feedback, that the course objective is the political influence on the development of science and technology. However, I think I excelled in engaging myself as an avid learner and inquirer through the creation of the cases and leaving future students with resources.
- i) I think the course fulfilled the learning objectives that was set, especially in exploring the political influences towards the development of science. I would have been interested to learn more about how political influences in other countries affect the development of science in their respective environments. I felt that identifying the similar themes among the case studies would build a comprehensive objective understanding of power, influence and politics in science and technology.
- j) I have 100% re-engaged as an avid learner and inquirer. I found my sense of wonder and curiosity skyrocket while taking this course. I have a much more nuanced understanding of the dynamics at play in the relationships between citizens, scientists, journalists, and policy-makers. It is hard to describe exactly what it is I understand, but if pressed to, I would say I appreciate the complexity of the dynamics mentioned above. As far as being ready to teach and engage students = I definitely see how the conversations we've had in CRCRTH649 have bled over into my own classroom. At the same time I feel like I need more exposure to classes like this to really internalize and verbalize exactly what about my thinking is changing.

4. Synthetic statement (1 or 2 paragraphs). Building on your comments from Qs 1-3, compose a synthetic statement (1 or 2 paragraphs) evaluating this course. (Imagine readers who might not be willing to wade through all the answers to Qs 1-3, but are willing to read more than simply the numerical averages of standard course evaluations.) Please make comments that help the instructor develop the course in the future and that enable some third party appreciate the course's strengths and weaknesses. Among other things you might comment on the overall content and progression of classes, the session activities, and the use of mentors to support the learning in the course.

- a) This course has expanded my learning journey in a way that other courses have not even come close to. The format of the course fosters organic learning, supported by a wonderfully curious and down to earth instructor who encourages collaboration and research based on interests rather than a curriculum. I came into this course expecting a sort of normal course experience, but can leave knowing that some of the things i have been presented and have discovered myself will stay with me for a while to come, despite my focus being far removed from science in my professional ambitions. This course is for everyone, not just those interested in science, and if you truly put in the effort to be curious, you will be greatly rewarded and surprised by how you can impress yourself.
- b) Peter was always available for questions or concerns, which I value highly. I did come to understand the challenges of affecting policy surrounding issues in science to a deeper level than when I began the course. Many of the sessions included listening to a plethora of issues via presentation form. Feedback received from these presentations was helpful.

- c) If you want to learn how to investigate problems having to do with science, technology, and policy, look no further. This course will bring you through several problem based learning units that will expand and extend the way you think about these topics. You will be able to focus on areas that are of specific interest to you and you will be able to dig as deep into the rabbit hole as you like, finding out all the information you need to present your information to the class. This fast paced course will offer you the skills you need to analyze political influence on scientific and technological advances that you never realized were there. You will discover inside you the learner whose appetite has been forgotten, and you will feed that learner all the knowledge they can handle. You will also be able to organize and process the information you find into a neat pile that you can later comb through to find what you're looking for.
- d) The Scientific & Political Change course is a strong offering that calls on the learner to be self-motivated as well as curious. Because of the open-ended nature of the projects, there is a lot of flexibility in terms of how you approach the assignments, and one of the strengths of the course is that it broadens your perspective of what science-policy connections are as well as the disciplines in which these connections exist. The variety of case studies one sees in this course, because of the peer work presented, is excellent and there is relatively quick turnaround with the four PBL structure. There are recommended weekly readings that provide supporting theory, but are not discussed and it is required of the learner to make use of them. It would probably be helpful for people in the course to complete the readings as well as seek out (or be provided with) additional resources or tools that would support the underlying theory/foundations for undertaking these inquiries. The progression is quick, so getting peer support as well as leveraging the support of the instructor (who was excellent) is important - as is staying on top of assignments - the provided assignment checklist is the best way to ensure that everything is submitted and to deadline. I really enjoyed this course and would recommend it to others.
- e) This course is really engaging and challenging. I appreciate how this course helped open up my learning and level of curiosity. Now I can use these tools I have learned for future classes, and/or life experiences, specifically in continuing to work on using my voice.
- f) This class invigorated my sense of curiosity and interest in researching for the sake of study and investigating ideas about making (how to) change in areas of personal interest. Being able to experience the way other classmates did things was a great benefit to my learning process. The freedom of the looser structure was liberating and overwhelming at times but where that perhaps allowed me to fall short of producing something I could have done better with strict structuring, the navigation process of trying to find my way was BEYOND beneficial in a way that could not be replicated in a more heavily structured curriculum if it tried.
- g) When I started the course, I didn't know what to expect. It was my first experience with online learning and first experience with project-based learning. The way that the course is structured is very innovative because although you never have met these classmates or instructors in person, there is a genuine sense of collaboration and openness with the assignments and discussions. Peter did a great job of facilitating the class discussions and getting the students to think more critically and deeply about each of the 4 cases. To be honest, I think it would be a wonderful experience to be able to take this course a SECOND time; this time applying the knowledge and inquiry strategies that I developed this semester.
- h) Any student who is interested in science and technology and learning how new ideas or developments are brought to reality should take this course. Many people focus on what comprises the new technology or medicine, but forget how it came to be. Being able to research how politics and policies influences these will provide a student with the entire picture. This course is also special because you are able to focus on topics that interest you. If you want to focus on artificial intelligence or HIV/Aids research, you can. It may seem intimidating at first, but the structure of the course allows you to not feel like you are in this alone. You work with your peers and the professor to hone in your ideas. This is done through the completion of 4 Project Based Learning cases. Through these cases you will explore the topics you find interest in and connect them back to the course objectives. Note that these cases take time and dedication. If your work or life is chaotic, I might save this course for a time where you can attend every class. You will be disappointed if you do not put your full effort into this course because there is the potential to learn so much and really grow from what you research in this course.

- i) The course encourages the learner to take a personal journey of inquiry into the world of science and the politics that influenced its directions. The journey will be fast and intense but a learner that is keen on exploring and reading would do well. For those without scientific backgrounds, there would be difficulties initially in grasping the case studies and concepts that are presented but it is important to stay engaged with the coursework and to seek for help from peers and the instructor whenever needed. Extra effort goes a long way. A lot of the material in the course would be centered around the development of science and technology in the US, which might resonate or disassociate the learner depending on their political inclinations. To fully appreciate what the course has to offer, I recommend that the learner suspends their judgement to be open to new perspectives.
- j) This was a wonderful introduction to graduate school. I was encouraged to think, draw conclusions, dig into issues about which I was curious, and reflect on the products I created. I was most happy with that fact that it was not a course you can really ""mail-in."" When this is an option, I tend to lean towards good-enough instead of great (top on the list of things to work on). Not the case for this course. The projects require you to recognize relationships, birth original thoughts, and express yourself in an accesible way. You're given more than enough time to complete the projects, and since you can do them on essentially anything that interests you (so long as it is related to scientific and political change) the motivation level is high. Great course. Great teacher/thinker in Peter Taylor. It feels like a really safe space to take risks and have opinions.

I give permission for my response to Question 4 to be included anonymously in the compilation posted to the CCT wiki (and thus viewable to the public).

- a) Yes
- b) Yes
- c) Yes
- d) Yes
- e) No
- f) Yes
- g) Yes
- h) Yes
- i) Yes
- j) Yes

Using the scale below, overall, how would you evaluate this course?

1. Very Poor 2. Poor 3. Average 4. Good 5. Excellent

- a) 5. Excellent
- b) 4. Good
- c) 4. Good
- d) 5. Excellent
- e) 5. Excellent
- f) 5. Excellent
- g) 5. Excellent
- h) 4. Good
- i) 4. Good
- j) 5. Excellent

Using the scale below, overall, how would you evaluate this instructor?

1. Very Poor 2. Poor 3. Average 4. Good 5. Excellent

- a) 5. Excellent
- b) 4. Good

- c) 5. Excellent
- d) 5. Excellent
- e) 5. Excellent
- f) 5. Excellent
- g) 5. Excellent
- h) 5. Excellent
- i) 5. Excellent
- j) 5. Excellent