

Gender, Race, and the Complexities of Science and Technology

All evaluations are anonymous. They will be given to the instructors after they have turned in final grades. A copy will also be kept in the Consortium office files for use only by the Coordinator, Board of Directors, and MIT staff. Student evaluations are very important to the Consortium and instructors; we appreciate your thoughtful responses to the questions.

PLEASE COMPLETE THIS FORM DURING CLASS TIME AND PUT IT IN THE ENVELOPE (or email to arsutton@MIT.EDU), THEN SIGN YOUR NAME ON THE LIST. GRADES WILL NOT BE RELEASED UNTIL THE FORM IS SUBMITTED.

Part IA (designed by the course instructors)

1. Start with a self-evaluation: Did you achieve your personal goals? 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?

- Yes, I did achieve my personal goals; I would put more endeavor into it next time; My pressure from my home institution was an obstacle
- Yes, I think I have learned (and begun to delve into) the STS literature. I have also learned techniques for narrowing my work and organizing readings.
- I did achieve my goals, but I wish I had more time (i.e. 40 hours/week) to go beyond them! I'm still feeling like there's lots more to read and learn in relation to my topics/inquiries
- I was unclear about my goals when I started this course, but it really was beyond any expectations. I would have had more confidence at the beginning and really had faith that I would come to an understanding of the main STS readings, theories, objectives, etc.
- 1. Yes, achieved goals; learned new pedagogy; discovered STS literature I did not know existed; and did projects that interested me. 2. Give a better introduction at the beginning of course regarding student expectations; 3. Balancing the scattered, evolving readings/projects with my 3 traditional and regimented courses.
- I definitely achieved my personal goal to explore S&T topics as they relate to policy work. Time is the only obstacle I found.
- Yes! I would also not do anything differently. I'm glad I audited the course.
- To be honest, I began the course not knowing if I had any personal goals. With that said, I achieved more than my personal goals and am now equipped with a MA thesis topic as well as the knowledge everyone else brought to the table. The biggest obstacle was myself and learning how to adapt to this mode of learning and producing but I loved it.

What have you learned about making a workshop format, PBL course stimulating and productive? What would your advice be to prospective students about how to get the most from a course like this?

- How to design and organize; at the very beginning, it is better to go with some concrete introduction about PBL
- I think the workshop is most stimulating when we engaged in exercises such as free writing. Getting the most from the course --- just delve in and try to ask questions you care about and begin to answer them. Letting go of what is extraneous is part of the process.
- I've learned that providing prompting cases/literature is a good way to spark PBL. I would say "go with it!"
- PBL courses, at least what I gather from my experience in GRST, are self-steering. I would tell prospective students that they will get what they put into the course.
- My advice would be: relax, but don't procrastinate. You'll put in more time, but the good part is, you only really have to do what you're interested in; and you'll be come interested in surprisingly new ways. PBL Course: everybody can learn something.
- Quite a lot. I want to use these formats both in academic and community-based work. My advise to prospective students would be to engage in the here and now process and don't let the course expectations get too far into the forefront.
- It's a great structure – but it's a skeleton. More work must be done design-wise to provide students with some skills.
- I would say to be open and creative as possible. I think I felt so worried about expectations that at times it stymied my output.

2. General evaluation: How did the course meet or not meet your expectations? How did your attitude to doing the course change through the semester? How do you think the course could be improved? What was special about this course (+positive & -negative)? How does it compare with other courses? What would be your overall recommendation to prospective students?

- This course provides me opportunity to do what I want to do. My attitude changed from stressful to enjoyable. Giving little lecture about the course (could help improve it.) I enjoyed the inclusive classroom, the different perspectives/backgrounds of

teachers and students' participation. The course was lacking an introductory lecture. I love this course more than my other graduate courses. My other courses are all filled with lecture, lecture. This course provides chances to learn about learning and practice your own wondering.

- This course was great – very collaborative in terms of sharing work and giving feedback. My attitude changed throughout the semester in that I learned how to balance readings and developed a sense of the expectations of the course. I began to take seriously my own inquiries and interests. I think that at times presentation times were too long – it would have been better to have more shorter slivers of time to discuss our inquiry, especially the final presentations were very long. The course was very self-directed. I would say proactive students would learn a lot from taking this course – it teaches you some of the fundamentals of being in graduate school.
- The course exceeded my expectations! The first couple of cases I definitely worked beyond what I was able to sustain subsequently. Improvements? More time (as we did in the second half) for responses to fellow students' presentations and inquiries. A special + to self-directed inquiry by a collection of diverse students. A special – is that the expertise of the professors needs to be channeled more constructively. This course was comparable – on the inspiration scale – to other Critical and Creative Thinking classes I've taken, which is a good thing! I would recommend the course to others and recommend that they keep an open mind.
- This course was unbelievable! I am walking out of here with an understanding of STS, new technology skills, a fantastic idea for my master's thesis and a greater understanding of women and minorities who have generally been excluded from science history. As the course progressed I gained more confidence, skills, and interest in both STS and PBL. I would have liked a little more structure in the beginning. More "assigned" readings and lectures – just to get a background. The environment = +, self-steering = +, cases = +, limited group discussion = -; limited structure early on = -. Work/expectations were similar to other courses. I'd tell students to let their own experiences/interests guide them.
- Met my interests and therefore I was more interested in the work but I felt I did not have enough time to research (because of my other classes). I enjoyed the process of research and presentations more as the class went on. I was more relaxed, healthier, and learned more because I enjoyed it. I talked about this class outside of the class. The course could be improved if we had maybe one common article/book to read at the beginning of class. Or in the middle. Just a little break from cases to help shift gears smoothly. I got introduced to tons of new literature and made contact with other professors/researchers whose contact info I was given by Anne and Peter.
- The course definitely met and exceeded my expectations. I enjoyed learning more about my classmates and instructors as we progressed. (+) - the student centered approach was great and the construction of knowledge and inquiry was great; (-) – A little more interaction time between students to share feedback or in class to share reflection.
- The course was very interesting; frustrating and wonderful; lots of student culture was good; very little teacher lecture was both good and bad; student grading systems cause stress
- It exceeded my expectations. I really believe this is not just how graduate courses should be taught (which I strongly believe) but that PBL learning should begin as early as possible. I think the only downside is that I did struggle with expectations, but in a way, I think this was the point – that the professors never wanted to box us in. I loved being the producers of knowledge – not just on the typical things that grad students are doing (thesis, research projects) but in class.

3. Re-read the course description (from the syllabus). Comment on how well the goals expressed there were met and make general and specific suggestions about how these could be better met.

What can we learn about science and technology—and what can we do with that knowledge? Who are “we” in these questions?—whose knowledge and expertise gets made into public policy, new medicines, topics of cultural and political discourse, science education, and so on? How can expertise and lay knowledge about science and technology be reconciled in a democratic society? How can we make sense of the interactions of living and non-living, humans and non-humans, individual and collectivities in the production of scientific knowledge and technologies?

The course takes these questions as entry points into an ever-growing body of work to which feminist, anti-racist, and other critical analysts and activists have made significant contributions. The course also takes these questions as an invitation to practice challenging the barriers of expertise, gender, race, class, and place that restrict wider access to and understanding of the production of scientific knowledge and technologies. In that spirit, students participate in an innovative, problem-based learning (PBL) approach that allows them to shape their own directions of inquiry and develop their skills as investigators and prospective teachers. At the same time the PBL cases engage students’ critical faculties as they learn about existing analyses of gender, race, and the complexities of science and technology, guided by individualized bibliographies co-constructed with the instructors and by the projects of the other students. Students from all fields and levels of preparation are encouraged to join the course.

- We used our inquiry to explore science and technology. We also tried to relate this scientific knowledge to our own interests and readings.
- We definitely developed our own lines of inquiry and practiced what it means to be investigators. The course was open to people of varying levels and interests without being chaotic.
- On a 1 to 5 scale: “ever growing body of work” = 4; “Practice challenging the barriers of technology” = 3; Student collective participation = 2; Student individual participation = 4; “students develop their skills as investigators” (Adele Clarke’s tools especially) = 4; “students develop skills as prospective teachers” = 5 (I saw the future professors get inspired!); “guided by individualized bibliographies” = 2 (More coordinated/predictable feedback and suggestions would have been helpful. Some were too late to be helpful unfortunately (for that particular case).
- I have highlighted the themes that were covered in depth during this course, however, since the course really encouraged individual inquiry, these were the themes I picked up on. Other experiences might be different.
- Answered the “we” question by talking about all the players = expert vs. lay knowledge, community members, researchers, cultures, policy makers, etc.; How can it be reconciled? We did quite a number of student-generated workshops that mentioned a reconciliation process, made maps, etc.; I read Haraway, Reardon, Werskey and more of my others and plan on reading more from the evolving bibliography when I am finished with class.
- I definitely got a good sense of STS and within a context that had relevance to my own research interests. I feel the combined interests of the class touched on many areas.
- [Regarding the question “How can we make sense of the interactions of living and non-living, humans and non-humans, individual and collectives in the production of scientific knowledge and technology?”] This is the only piece I didn’t feel was truly addressed. Apart from that, I feel the course goals were addressed beautifully, especially the ‘challenging the barriers’ part.

Part IB (Items identified by GCWS)

4. Comment on any of the following items you have not already covered above.

Size of the class?

- I think it’s good
- Small size (in the end) was nice
- Just right!
- Small, and perfect for this project.
- 8 people (we started with around 12)
- 8 persons was a good size; more than 12 or so would be too much.
- Good
- I thought it was great for our exercises.

Classroom dynamics, discussions, and interactions

- Students got involved. That’s good.
- Great group, very respectful
- Energetic, diverse, and exciting dynamics. Great use of other students and professors as resources for interaction.
- All interactive with presentations approximately every three weeks. One lecture from each presenter. We had snacks too.
- Great interactions. Everyone was engaging and thoughtful.
- Pretty good
- There existed a lot of respect and encouragement among students.

Assignments, including presentations: Helpful for your learning? Number? Difficulty?

- Yes. They are very helpful for my learning. I think the number is ok. Sometimes it’s our own time management issue, not the number.
- Helpful, very stressful, but a wonderful learning process. I mean learning in terms of information and critical thinking, but

- also learning how to pursue questions, organize, and present information
- Yes – helpful. Number & difficulty – just right.
- Assignments and presentations were what we made of them.
- Very helpful, enjoyable. Experimented in new formats outside of traditional “papers”. Did a course curriculum, an ethics guideline, a teaching methodology and a community workshop.
- Most definitely. Engaged in a deep knowledge building way
- Ok
- Very challenging, but in the absolute best way – in a way that I want to keep being challenged. It made me PASSIONATE about my work.

Instructors:

(one student responded to all: open, accessible, good and thoughtful feedback, inquiry mode extremely useful)

clarity and organization

- Very good
- Not bad.
- +
- 8.5 out of 10 (I didn’t understand at the beginning of our course what was expected. After the 3rd week I did)
- Could use improvement
- This could stand to improve although I should caveat that with the fact that Peter and Anne were wonderful, I have never had professors take so much time to give me feedback and really care.

openness to a variety of approaches to the material

- Yes
- Both professors brought different approaches and different information.
- Yes indeed.
- +!!!
- 10/10
- Very good

instructors working together as a team

- Sure.
- Pretty good.
- +
- 10/10
- pretty good

interaction with students outside of class time

- I never went to any office hours so often like this course.
- Great.
- +
- 10/10
- none

feedback on assignments and presentations

- That’s very helpful. Within feedback, we could know how to improve our work ourselves.
- Great.
- +
- 10/10 (Email, in class, and phone conversations. They were always available and challenged us to do better work by resubmitting projects)
- none

What (if anything) did you gain anything in this course that you would not have been able to get at your home institution?

- I intend to do my own research and involve it in the classroom. I don’t feel I am an international student here. People are more nice and open.
- Openness to talking about race and gender in more complex ways. Attention to assumptions and knowledge production.
- Diversity of students, richness of resources represented by them and the instructors. Suggest the instructors connection with

the home institution...

- New professors and new students
- Interaction with people from other disciplines
- Diverse students, expertise of instructors, STS topic
- Different structure and perspectives
- A thesis topic that I truly care about and the ability to seek out my own Q&As, also Peter and Anne

Would you take another consortium seminar? Why or why not?

- Sure. I'd like to take one. I'm so interested in the issue of gender and technology. It's hard for me to do this in my home institution.
- Yes, absolutely. Enjoyed meeting and working with interdisciplinary group of scholars. Professors were clearly committed to the course and topic.
- Yes! I had a great experience. Thanks for hosting, MIT!
- Yes – but you only offer one in the fall and I graduate in December.
- Yes. Let me try out communicating my interests in settings that I am not necessarily comfortable in. I also am introduced to students, professors, and material that I would not have the chance to be introduced to.
- Yes.
- Yes. Always open to my thinking. Broadened by perspective. Love it.
- Absolutely – I liked getting “outside” and specifically, I would be interested in taking a PBL.

Part II (designed by course instructors)

Write out neatly a synthetic statement (1 or 2 paragraphs) evaluating this course. (You might build on/build in your comments from the other pages.) Please make comments both to help the instructors develop the course in the future and to enable some third party (e.g., GCWS or potential students) appreciate the course's strengths and weaknesses. (Imagine a reader who may not have time to wade through the items on the other pages.)

- About PBL: I do think that for STS, creativity is very important. PBL entitles students the right to create their own research without too much limitation. Students may become narrow minded, however how to balance lectures with PBL may be a good question to explore. About the class: I love this class. Presentations and discussion let everyone get the equal opportunity to participate in this class. We have diverse students in our classroom, and this is important to build an inclusive classroom. About the teaching: This course teaches students how to learn the learning and how to change what they know into what they are wondering.
- The course provided a space to think about issues both in an academic way and in an applied way. Critical questions about our social worlds were brought up. Opportunities to do work rather than just absorb information. The strengths of the course are that instructors really created a space for us to develop our own line of inquiry. This is a huge challenge – allowing yourself to follow important questions. I'm sorry I cannot write more – please see the rest of my evaluation (above)
- This course was challenging, inspiring, and fulfilling in many ways. The pedagogy, diversity of students and their strengths and interests and their professors' expertise and day-to-day support was invaluable.
- I would highly recommend GRST to any student, regardless of STS background. The self-steering nature of the course is an ideal setting for the knowledge seeking graduate student. The diversity of topics, professors, and a refreshing course made a great experience!
- I was given the space to pursue my own interests without being nervous about quality. (This allowed us to take risks!) I was introduced to research, scholars, books, materials, and ideas that I was not aware of. And this allowed me to find connections with my own innate interests. I was challenged to do better work all the time, as we were asked to do revise and resubmits. Having individualized, evolving bibliographies was the best part, and the professors worked with each of us on these throughout the week.
- Breaking apart the typical format and rhythm of most graduate learning environments is hard. Knowledge in core disciplines must be gained and "standards" of an academic profession imparted. But where is the joy and love of learning that made us all want to be students for as long as we can be? This class brings the exploration and inquiry back. It feels messy at times and frustrating and stressful, but what gets produced is amazing and deep and diverse and makes you want to know – "What's next?" Who committed to higher learning wouldn't want to participate in a course like this?
- *[This evaluation, by an auditor was a diagram (appended).]*
- During this course I have been challenged in ways that I thought were impossible, but that I had been craving in my home graduate program. People often talk about grad school being a place where you really begin to produce your own knowledge, but I had yet to do that apart from initial work I had begun (outside of classes and under no supervision) on my thesis. This class opened the door for me to be a producer and a thinker of my own knowledge that I had sought out. It has really changed me as a "student", and I'm so grateful I was given the opportunity to work with Peter and Anne to do it.

3. Re-read the course description (from the syllabus). Comment on how well the goals expressed there were met and make general and specific suggestions about how these could be better met. (1 to 5 scale)

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Part IB (Items identified by GCWS)

4. Comment on any of the following items you have not already covered above.

Size of the class?

Just right!

Classroom dynamics, discussions, and interactions

Assignments, including presentations: Helpful for your learning? Number? Difficulty?

yes. just right

Instructors:

clarity and organization not bad
openness to a variety of approaches to the material yes indeed
instructors working together as a team pretty good
interaction with students outside of class time great
feedback on assignments and presentations great

What (if anything) did you gain anything in this course that you would not have been able to get at your home institution?

diversity of students, richness of resources represented by them

Would you take another consortium seminar? Why or why not?

Yes!

I had a great experience.

Thanks for hosting, MIT!

& the instructors.
Suggest ↑ connection
w/ the home
inst'n...

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I have highlighted the themes that were covered in depth during this course, however, since the course really encouraged individual inquiry these were the themes I picked up on. Other experiences might be different.

Part IB (Items identified by GCWS)

4. Comment on any of the following items you have not already covered above.

Size of the class?

Small -- perfect for this project.

Classroom dynamics, discussions, and interactions

~~Great discussion~~

Energetic, diverse & exciting dynamics. Great use of other students & profs as resources for interaction.

Assignments, including presentations: Helpful for your learning? Number? Difficulty?

Assignments & presentations were what we made of them.

Instructors:

- clarity and organization +
- openness to a variety of approaches to the material + !!
- instructors working together as a team +
- interaction with students outside of class time +
- feedback on assignments and presentations +

What (if anything) did you gain anything in this course that you would not have been able to get at your home institution?

new profs, new students

Would you take another consortium seminar? Why or why not?

Yes - but you only offer 1 in the fall & I grad. in December.