Graduate Consortium in Women's Studies at MIT   Course Evaluation Spring 2011
Gender, Race, and the Complexities of Science and Technology

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?

- I made progress towards my personal goals and developed new goals as well. My major personal obstacles to getting more from this course was my own lack of time to devote to it but this was something I benefited from being able to openly acknowledge
- I achieved some of them. I would have focused more on honing my process for research since I figured out three weeks in that I was already familiar with PBL-esque learning.   My major personal obstacle was working out what kind of authority the professors took themselves to have.
- I didn't exactly achieve the goals that I brought into the course, but my goals definitely changed and developed over the course of the semester, and I fulfilled these new goals. My biggest obstacle (which turned out to be a great gift) was the lack of structure in the beginning of the course.
- Yes – If I was to do this again I would take more risks. Obstacles: feeling overwhelmed by the enormity of ideas and trying to narrow down my thinking. I've learned that I'm not good at developing thoughtful questions.
- Yes, achieved my goals. If I was doing it again, I would choose a scientific area to focus on for the whole semester – things really got going when I turned to genetics. Major obstacles have been time and over-cautiousness about sharing.
- Yes, I achieved most of my personal goals for the course. If doing the course again I would get more creative and innovative with my products and presentations. The major obstacle was lack of time due to other courses and obligations.
- Yes, I did achieve my personal goals. If I were to take this course again, I would be able to better complete the assignments simply because it's confusing knowing what to do during your first PBL course. My major personal obstacle to learning was originally the structure of the course simply because I didn't know what was expected of me, but then the PBL model actually helped me learn more by the end of the course.
- It is hard to name what I would have done to precede differently in this course. Honestly, I would have done the same thing, but with different articles or some other project of interest. Personal obstacles had a lot to do with my initial reactions to working in a new format, PBL. I came from a discipline that practices strict academic performance and typically doesn't allow room for the student to explore interests within the field of academia until a paper is composed in the last month of the course; which I feel doesn't fully go anywhere because the field requires participation in forwarding the argument, proposal, and or concept.
- This course provided me with the opportunity to not only think more critically but to understand that the worlds problems cannot simply be solved through a narrow lens of study. I feel strongly that from this course I have been able to develop a deeper understanding of my research ideas and how they can apply/be implemented into the larger landscape. If I were to do this course again, I would perhaps try to investigate other topics outside of my interests with beauty.
- I'm really very happy with the outcome of this course. I came with a bunch of questions related to my PhD project and I really can say that I have become much clearer on a lot of questions I had + I 'm also really happy about the readings advisers and fellow students have suggested me to read. There is at least one big issue in my own project I

was able to solve, and a lot more of avenues I see that I can go in my future research. Despite the fact that I already had my individual project and my particular questions I found it very helpful that I from the beginning was able to trust the advisers and their concept, so I was completely open to what ever comes. That helps. But it was only possible to a large extent because I really felt save and had the feeling that the advisers know what they do and have a plan.

- Yes, I feel like I have achieved my personal goals. This class was so great that I wish I spent more time preparing each week. I did spend several hours a week on my projects for this class, but the approach allowed us to open several avenues of exploration.

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?

- I would advise students and faculty to be open-minded and utterly embrace a new experience. The PBL format will prove itself to be hugely beneficial and stimulating if it is approached with an open heart and respect.
- Clear instructions, even if they aren't specific; know that what you get out of the course will correlate with how much effort you put in.
- I most appreciated gaining the perspective that, as someone committed to a goal of life-long learning, ALL of my work is work in progress and that I needn't feel nervous or worried about sharing and requesting feedback at any step in the process.
- Be open to asking questions and to receiving comments: trust the process, be ok with making mistakes; have fun!
- Dialogue process makes for truly collaborative discussion; An attention to process takes you miles and miles beyond purely leaping after conclusions; my advice: think from the get go: I have been given permission to play – what have I wanted to do but have held back on?
- The benefit of PBL is learning from other students and shaping the material of the course collaboratively. It could be even more stimulating with less structure and more student input--if, for example, students each picked a reading for class discussion. I would advise other students to give other students quality feedback and criticism, and they will receive the same.
- I would tell prospective students that this course allows you to pursue what you're interested in, in relation to gender, race, science and technology. I would also tell them to take advantage of the help of their professors and fellow students because their advice is valuable.
- Allow yourself to be open-minded to the format. Question things when you feel lost or frustrated. I find that the frustration derives (speaking on behalf of my experience) from one's own resistance; I mean you learn a particular style of academic process and it is difficult to break at times.
- I have learned a great deal about developing workshops and how PBL is an important tool for graduate students. I think through PBL graduate students learn how to become independent thinkers, which is critical when entering academia or industry. To students who are about to approach this course or methodology they should understand that they must leave their preconceived notions outside the door and that this course is a lot of work, but the work is worth it.
- Some of my answer I have given already above. I'm not sure what I can add to the course's set up. It was great: the free-writing, the feedback-paper-rounds, the card-dialogue, the individual presentations, small group discussions, whole group

discussions. Cases that connected the group and the homework in which we could develop our individual projects further and got feedback from the advisers and fellow students. Just great!

- The PBL course in itself was stimulating and productive because it has taught me to become a better critical thinker, to question tacit assumptions, and pay more attention to the process of learning. I would encourage students to embrace the process and participate fully.

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?

- The course exceeded my expectations dramatically. My attitude changed by becoming more action oriented and by applying what I learned both in terms of course material and PBL actively outside of the course despite my lack of "expertise". This course is special because it creates a collaborative learning environment and space for facilitated personal growth that I have never experienced in a class. The atmosphere of respect is so powerful and honors all voices. I would recommend prospective students not to be afraid of initial discomfort with trying something new.
- I was glad for the opportunity to take this course. I wish I had taken it earlier in my PhD career when I was really craving a break from lectures. I think the course would be better if the professors took turns making up assignments. It felt too one sided at times. Overall recommendation: Great course.
- This course provided a great opportunity to explore some of my own areas of interest from a new perspective, but it wasn't the information-gathering type of course that I'm used to.   The lack of direction can be daunting, but it was also constructive. I would suggest prospective students take this course with some self-directed objectives already in mind.
- Course was wonderful. I loved taking my individual ideas somewhere and then having feedback to what I can do to expand on the ideas from my classmates. I think it was after my presentation for case 1 when I realized how great and unique this class was going to be. Sadly my other classes seem to lack what this course provides – the people.
- The course was brilliant. Mid-semester I felt concerned the course was not giving enough grounding in STS and gender/race studies fro me to make a meaningful contribution – but the second I found an area to focus on, everything fell into place and the toolkit I'd unwittingly received (focus on process, KAQs, etc.) empowered me to learn far more than if I had grounded myself. I highly recommend this course to those courageous enough to not always know what they're doing, who can be both self-guided and collaborative at the same time.
- The course is far more stimulating and engaging than other courses I am taking. The PBL format and collaborative process create a higher energy level than I am accustomed to in most classrooms. One negative: Some of the presentations and products, and the discussions that followed, at times veered pretty far away from the course description (i.e., they weren't necessarily related to science and technology). Overall, I would definitely recommend this course to prospective students.
- I did not know what a PBL course was before taking this course, and honestly didn't

know that this was a PBL course. I assumed it was going to be similar to my other seminars, which it wasn't. Though I learned a lot from this course, it was A LOT of work. So, you have to have the time to put in the effort for this course. I was also surprised by the amount of presentations we had to give in class. It would be very helpful to prospective students to give a little background about PBL, and to the fact that the course will be different from their other courses, and that they will be required to give four presentations throughout the semester.

- I wished we were able to partner with a student in-class and have time situated at the end of class to go over our research and formulate something via class and email. There were classmates that could have benefitted from my expertise; the same goes for my personal benefit in working with a partner on a partnered project. Other courses, as I have written about through this evaluation train us to learn and regurgitate. This course does the opposite. PBL allowed us to flourish our knowledge and claims.

- Throughout this course, both instructors were available almost 24/7 for guidance on topics and questions. Through the semester, I no longer was afraid of the 'outside the box' approach that our course took and instead was really excited about taking chances and being able to 'play.' This course was incredible special as I was given the opportunity to test out new ideas, and even when they failed was able to not 'fail' the course. I also appreciated that the products were not so much 'graded' as they were 'evaluated' and that any product could be improved upon. In a negative, I really wish we could have had some more time learning about the instructors ideas, research etc. Compared to other courses this is the best. I feel bad for my other courses as they'll never be able to compare

- My attitude to learning in a playful way changed a lot. In previous years (during my education in Germany), I often had the feeling that professors or teachers use interactive learning when they are not prepared and did not know what to teach. This experience was different this time. I could see how this course was really arranged in a purposeful way. And it was visible how much effort the advisers had put into the framing of the course already from the syllabus and also from how they had organized the wiki. In this set and prepared frame it was easy to let go and to playfully explore my project and to actually be productive without having pressure from outside.

- The course far succeeded my expectations. I really enjoyed this pedagogical approach and benefited from it in a way where it has changed my learning process even in my other classes. The first class was a little stressful because it was difficult to understand how the class was structured and how we should proceed with the first case. However, after seeing the first round of presentation, my perspective changed and I thought that it had been very effective.

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.

- The goals of the course were well met.
- It took awhile to understand what the goals of PBL and KAQs were, but I'm not sure how those goals could be more clearly articulated. I remember feeling really overwhelmed when I was first trying to navigate the wiki and the course.
- If any of these goals remain unmet, I definitely now possess the resources to fulfill them on my own. Revisiting the course description throughout the semester may have been helpful in terms of focusing the class.
- I feel like the course really met the expectations that were presented.
- The course accomplished every word of these goals, which is impressive, and I'm extremely lucky to have taken it. The major site of concern is the circled portion (… as they learn about existing analyses of gender, race, and the complexities of science an technology…) – cases may need to include more on 'existing analyses' – I'd dispense with the Haraway opening and instead offer a first window into a kind of analysis (just making sure it doesn't overly influence students to mimic it.) And offer some existing analyses the week before starting a case.
- Overall, the goals were met. As mentioned above, some students' presentations seemed to veer away from topics of science and technology. While they were still interesting, the instructors could do more to nudge the focus back toward the course goals.
- *Left blank*
- This course enabled a sense of agency in the field of science in technology. Science and Technology, as we learned in this class by poking and prodding, is a field that typically shuts out the student whom lacks familiarity or the 'proper education.' It was a course that allowed—if not enabled—critical inquiry and skills necessary for development.
- I think that there is a pre-conceived notion among students about what science and technology are, which may drive some students away from the course. Perhaps redefining what science and technology are, especially in terms of this course could attract more students.
- From my perspective this course has met all the goals that have been announced in advance. I would have loved to see more projects from natural science. But this is not up to the advisers. It is simply a pity that not many students of natural science seem to be invested in questions of STS or social sciences. At least there was one biologist and what she presented was great.
- I feel that the goals of the class were met by the way the class was structured. We were given a case that caused us to think about the intersections of gender, race, class, and the social construction of science and technology and then were given the freedom of engaging in further inquiry in an aspect that was interesting to us. During the presentations on our further inquiry, Sally and Peter, as well as the other students, provided written feedback and could ask questions and make suggestions about our projects. These questions and comments often helped us further analyze aspects of gender, race, class, science, or technology that we may have never thought of.

Part IB (Items identified by GCWS)
4. Comment on any of the following items you have not already covered above.
Size of the class?

- Good.
- Good – not too big, and you wouldn't want it to be. <6-8 people.
- Great
- 12 – good.
- A bit too big when everyone was giving a presentation on the same day, but it was great to have so may perspectives.
- *Left blank*
- Good size
- The size of class was fantastic. I believe we had 14-15 students. The amount enabled enough participation.
- Great!
- *Left blank*
- I thought the size of the class was fine

Classroom dynamics, discussions, and interactions
- Amazing
- Print out copies of instructions. The emails got a little chaotic and overstimulating at some points.
- Email discussions /class feedback/discussions – it all went together.
- What fabulous people! And well thought-out means of getting us engaged.
- Very engaging and collaborative.
- Great dynamic, discussion and interaction in the classroom. Everyone was very supportive of each other and respected each other. One of my favorite aspects of the class.
- Amazing!!!
- great
- The classroom dynamics provided a very supportive atmosphere, the discussion were engaging and enlightening, and students were eager to participate in class discussions even outside of class.

Assignments, including presentations: Helpful for your learning? Number? Difficulty?
- Extremely helpful (especially given built-in feedback at all times from the entire class)
- They were helpful; it took awhile to understand how many "units" were in the course.
- Great
- Yes, very much so.
- Nix one case and use the time opened up for attention to "existing analyses' as pointed out in the course description.
- I learned a lot from both preparing my presentations and listening to others'.
- The number of assignments and presentations was overwhelming. They were very helpful to my learning, but were also a lot of work. While they were really useful, it may be helpful to cut one out and spread the others out over more time.
- *Left blank*
- Assignments were very helpful to my learning and I enjoyed the number of them. Some felt easier than others but that was honestly up to the student, as you could make your assignments as challenging as you wanted.
- the number of assignments was just right. One task per week that build up on the earlier tasks.

- *Left blank*

Instructors:

clarity and organization
- Good
- Organization of class as a whole was good, clarity of individual assignments and activities not so much.
- Great
- Yes
- *Left blank*
- *Left blank*
- *Left blank*
- *Left blank*
- Great! They always seemed to know what was going on and were very well organized!
- absolutely perfect!
- *Left blank*

openness to a variety of approaches to the material
- Absolutely! Wonderful
- *Left blank*
- Great
- Yes
- *Left blank*
- *Left blank*
- *Left blank*
- *Left blank*
- Amazing, they always were ready to help you take your interest and shape it into a framework for this class
- absolutely!
- *Left blank*

instructors working together as a team
- Very good
- Often felt like the class was one prof's project and the other was just tagging along giving commentary on the topics. (Good commentary).
- Great
- They were great together.
- *Left blank*
- *Left blank*
- *Left blank*
- *Left blank*
- I think they did an amazing job and should teach together all the time.
- great! harmonious, though not homogeneous which is great!
- *Left blank*

interaction with students outside of class time
- Good (given more time there would be even more and may likely continue after the course which almost never happens especially with such an interdisciplinary mix from different institutions.
- *Left blank*

- Great
- Yes.
- *Left blank*
- *Left blank*
- *Left blank*
- *Left blank*
- we spoke via email and that was fine.
- could not have been better!
- *Left blank*

feedback on assignments and presentations

- Amazing! Peer feedback as important as instructors'
- *Left blank*
- Exceeded expectations
- Wonderfully constructive.
- Instructors were brilliant. So glad to have worked with them. The format of the course allowed them to offer us assistance often and profoundly.
- *Left blank*
- Peter and Sally were great in every way.
- *Left blank*
- great!
- Of course you wished to get even more feedback as a student. But from what is really manageable the advisers really did an amazing job!
- Both the instructors were extremely helpful in my academic development. They helped facilitate discussion and provided helpful resources and feedback. I cannot express how much I enjoyed this class and learned from the process.

What (if anything) did you gain anything in this course that you would not have been able to get at your home institution?
- Yes, nothing remotely similar is offered at my institution.
- The professional experience of other professors.
- I was encouraged to engage with material that I would not have been introduced to in ways that I would not have been encouraged to engage.
- The chance to network with other students across disciplines.
- Attention to process, experimentation, diversity of viewpoints, lack of assumed norms.
- The interdisciplinary focus and PBL format.
- I was able to cater to my own interests, which was great. At my home institution, I'm bounded by what is offered each semester, but in this class I was able to form projects and presentations around what I'm interested in. Because of this, I come up with a thesis topic from what I've developed in this class.
- *Left blank*
- Access to so many different people's perspectives and ideas on learning. I do not think any home institution would allow such an interdisciplinary course.
- the PBL concept + some of the concrete readings.
- I gained the knowledge of the pbl process.

Would you take another consortium seminar?   Why or why not?
- I would consider it based on this experience.
- Yes.
- Yes, absolutely. It was especially interesting to collaborate with so many students from such a variety of fields, each sharing and contributing their own perspectives.

- Yes – if Sally and Peter taught it.
- Yes – it's a fabulous opportunity. Seems to work especially well in the PBL or workshop mode.
- It depends on the specific topic.
- I'm not sure. While I learned a lot, it was also a lot of work.
- Yes, I really enjoyed the freedom of 'play.' This sense of play, as we discussed in our closing comments, enabled a flourishing that otherwise would have been discovered later in my career.
- I would love to take another course with the consortium! I really wish that the group offered something in the Summer time for credit.
- I definitely would!
- *Left blank*

Gender, Race, and the Complexities of Science and Technology   Course evaluation 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.)

- The GRST course provides an entry into the complexities of science and technology as they interact with society (in the context of gender, race, class, etc.) while immersing and introducing students in the PBL pedagogical framework. The course provides a supportive environment in which to identify personal strengths and weaknesses and develop personally and professionally. It also stimulates interest, development of projects, and multidisciplinary exploration and collaboration, taking all participants as equals with something valuable to contribute. Build-in feedback mechanisms and dialogue processes provide a means for tremendous support and opening intellectual avenues while allowing all voices to be heard.
- For someone who wants a break from lectures and wants real collaborative feedback, this course is great. It wasn't always clear how "structured" or "free-style" the professors envisioned students' projects or comments to be, but overall this was a great course where I leaned a lot about the process of research and what it means to research the barriers surrounding scientific knowledge based on race, gender, class, expertise, etc. It's also a great opportunity to think critically about the intersections between scholarship and activism.
- The opportunity to engage: 1. With students from a variety of disciplines; 2. With material outside of my own discipline; 3. In ways not explicitly encouraged by my discipline. All this allowed me to broaden my horizons, but in regards to my relationship with my own discipline and in regards to my perspectives about race and gender.
- This course is about learning how to learn. It allowed me to take my personal interests and connections to each individual case and develop my own line of inquiry. If I got stuck, someone was there to help me. Particularly for someone who has novice knowledge of STS, this course provided a safe space for me to ask questions and develop my won thoughts about how I interact with STS.
- This course is a gift – the chance to be open – open-ended in design, open to process, open to other perspectives, open to changing your ideas, and open to sharing. Of course this means it's risky too – you won't always know when you're coming from or where you are going – you might think you aren't sufficiently grounded by the course. But you have the freedom to change that – and being on the other side of it now, I see it

works out beautifully. The attention to process provides you the tools to grow and by the end you're riding the wave of your earlier work – just choose an area of science and/or feminist/anti-racist criticism and run with it.

- *Left blank*
- I learned so much from this course. It allowed me to build projects and presentations based on my own interests, which eventually led to a topic I will likely write my Master's Thesis on. One of the strong points of this class is that it really helps you articulate what you're interested in, if you don't already know. I also liked the group dynamic. All the students respected and supported each other, and had so much to offer to one another. I'm a fairly shy person, but I usually felt comfortable in this class. And, Peter and Sally are wonderful, helpful people. One thing I think should be stated more clearly to students before they take this class is that it is a PBL class and that it will be very different from their other courses. It requires A LOT of work, not a whole lot of structure, and many presentations. They should be comfortable with these aspects before committing to take this course.
- This course has provided me with the opportunity to become a critical thinker, which is a life skill. I believe strongly that this course has not only made me a better academic investigator, but a stronger contributor to classroom discussions. In addition, I have gained the opportunity about how to use other disciplines in my research.
- This course is NOT a traditional course and students who are looking for book learning should approach with caution. With that said, everyone should take this course. I would like to hear more about the teacher's experience and perhaps research ideas.
- *Left blank*
- This course was very enlightening in its approach. It encourages the students to take the initiative in their own development, but offers a supportive environment where the student is guided by the professors.