PPol 749/CCT649, Spring '10 Scientific and Political Change, Student evaluations

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 PBL framework, and the in-class discussions.

Student A. The Scientific and Political Change class provided a unique learning environment amplified by a PBL framework. The freedom to explore my own lines of inquiry while still linking them to the work of others provided a rich knowledge-building experience. The diverse experiences of the other participants was a key contribution to the class as were the insights and feedback provide by outside experts. The only downside was my own lack of time to delve deeper into the individual cases and limited feedback from others as well as time for reflection. I found new and nuanced understandings of the context and interactions that take place in the creation and implementation of policy. Even more so, I found that types of tools, processes, and exercises modeled during the class provided templates for future work. I definitely have a stronger visualization of how constructive and effective change environments might be designed and constructed.

B. This is a comprehensive course in the analysis of science and democracy and of its civic engagement possibilities. This course encourages participation of all members by creating an environment of inclusion, equality, respect and reflection. In this course, all members are important and matter. We are seen as intelligent human beings were we all can and have something to share. I really appreciate that no one says or makes you feel as dumb or as not belonging. On the contrary, we are always encouraged to participate and criticize each other critically. This course creates a true sense of academic community. This course encourages the development of collective knowledge and allows for the use of alternative methods of learning. This enables group member to explore more topics and learn more than in traditional courses were you simply memorize, repeat and say what you expect the professor wants you to say. This is a great course creating a true sense of inclusion and of knowledge building.

C. The application of PBL to this topic is a match made in heaven. Feedback from external panelists (often authors of the resources we relied on!) was invaluable and empowering. Support for student-to-student learning would make it even better.

D. It could possibly be one of the most important classes a person could take given the times and state of the world. No matter what a student's background is, the self directive independent nature of the class allows the student pursues topics of personal interest relevant to the course. The tools of PBL, the guidance of the instructor and the team learning give the student a solid foundation o which to become an engaged member in society or educator in specific settings related to scientific and political. Once a student has taken this course they will better understand the importance of their having taken the class and will hopefully start to carve out some new role for themselves within society as a conduit for change and a supporter of the public voice.

1. Start with an evaluation of yourself. Think about 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 how scientific and technological developments are impacted by political and public policy contexts. I do think I have a more nuanced understanding of how policy change can happen regarding scientific and technology policy. More than simple mechanical processes or checklists, I do feel I have a better appreciation of the social context of ideas and interactions around

critical issues. The concepts of self-organization, adaptive management, and boundaries have been particularly helpful to me. Certainly in doing the course over, I wish I had more time to really delve deeper or reflect more thoroughly on the materials. My personal obstacles are the same as they are for other academic endeavors which are juggling school, work, and family responsibilities as well as involvement is social change work.

B. My initial goal was understanding and analyzing the relationship between science and democracy. I believe I now know more and have understood the magnitude of the subject. At first, because of my lack of exploration of the topic, I hadn't realized it had so many twists and issues.   On the road, I learned many additional things. First, I really appreciated the diverse pedagogical techniques used in class. I now have a more comprehensive view of the diverse teaching possibilities and their consequences. Second, I learned a lot from the diversity of perspectives and from all the people in the group. Third, I am more critical and have a more comprehensive understanding of the role that science plays in society and government.   The only thing I would have changed is staying with the same "base" topic during all the term. I have to think more about this but perhaps it would have allowed me exploring more a specific topic in the four PBL cases. Nevertheless, the diversity of topics that I chose enriched my learning and perspective. Thus, there is a trade-off.

C. My goals were relatively modest for this course, and they were exceeded. We all noted that we worked harder and dug deeper than in courses with assigned readings, etc., and I was a little frustrated by my own time limitations.

D. I did achieve my personal goals - my obstacles were work related mostly, and some personal. In an ideal world I would not have to work and go to school. Time management, there are a limited number of hours in the week and I did not have as much as I wanted or felt I needed to really get all that I wanted out of this class - not the classes fault

1. Self-evaluation (continued) What have you learned about what you have to do to make a PBL/seminar format class stimulating and productive?
A. These seem to be the key components -- create space that is focused, create opportunities for each person to bring their ideas and knowledge to the table, listen, reflect, challenge assumptions, be open to new ideas, create enough time for inquiry and reflection, and be present.

B. The connection and structure of the four cases are crucial. I think the class's configuration is ideal. Also, perhaps pairing group members to criticize their work and then rotating the pairs might provide additional insights to our individual analyzes.   Indeed, having presentations and dialogues makes the class stimulating. Perhaps in-class discussions of our work from other colleagues could be beneficial. Having food also helps!

C. External panelists added a whole new dimension to the class, a real opportunity fir us to extend our own thinking about next steps. Further, the opportunities to discuss each others' work was valuable -- and more of this might serve a similar purpose to the external panel.

D. Preparation, participation, and follow on work based on interactions. I am a big PBL fan!

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 other students and instructor definitely made the experience a rich one. Having outside commentators was particularly effective in making the exercises more than simple exercises. The format of the cases were well structured. The class definitely met my expectations. I do think that providing more space for feedback and group reflection on each case would be useful to me.

B. The sense of inclusion and equality. The possibility and liberty of exploring a diversity of topics. The chance of feeling that your work is valued and interesting was great. The chance of listening to each of the group member's perspectives, opinions and work. This course met my expectations and beyond. I really thought I was just going to learn "content" but it went beyond that.   Perhaps by pairing up students so that can provide feedback on their work could be interesting.

C. Positive: PBL! Mix of students' expertise & experience & interests; the cases and their sequence. Negative: outdated tech equipment & lack of reliable internet access.   additional UMass investment would be a solution to the tech problems ....

D. The prof. was the most special part of this course, based on his knowledge and real world experience, along with the fact that he had the ability to work with everyone's inputs no matter what their back ground was. The people who attended this class and the diverse backgrounds they came from made this an enrichening experience. The challenges that were presented in this course and the assorted methods the course taught and employed went past my expectations. I think the course could be improved with some shorter quicker exercises and have one deeper dive project. Another is better organization of information management in and around the class. Diigo, wikki, syllabus, assignments, cases etc this could have been packaged in a way that is more logical (user friendly) and manageable which would have saved time for me personally, working and going to school requires every time advantage I can get. I understand the student should be or develop ways of being more proficient but I found my self wasting significant amounts of time bouncing around looking for "things" and I found it affected my own organization in a negative way.

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. I really like how the initial distinctions between students being at different research levels and spaces completely slipped away and how quickly we all became peers engaged complimentary research inquiries. The diverse skills and insights of the other participants really made for a great learning environment. I definitely feel like this course unleashes a lot more individual inquiry and research passion than the standard "chalk and talk" versions Danny often referred to. I found it interesting how after talking a previous PBL course, the mechanics of a second one are much more embedded in the expectations. I definitely would recommend this to prospective students. However, I do think a certain kind of student who is resistant to adaptation or not so interested in process work may be turned off or frustrated. I wonder how the course would work for a student in a vulnerable position (i.e. low independence, low confidence) might find the course.

B. Perhaps at the begging I felt uncomfortable because I never had so much liberty and I had never felt so included in a class. It was, at the begging, a bit frightening to feel that my perspective was as important as someone Else's. Yet I realized that there was no need to panic, but it made me reflect about the other courses where my perspectives are not valued. This course is great and I really appreciated that I am valued as a person with a valuable perspective and where we all matter equally. It is unfortunate to realize that so many course have decided to not be like this especially at a graduate level (although it should be like this at all levels). I would highly recommend this course to prospective students. You learn, learn from others and get the chance to charge your opinions and knowledge without the pressuring of feeling that the instructor will make you feel dumb just because he or she simply disagree (sometimes without reasonable arguments).

C. I definitely became more comfortable with the structure after the first case. I learned a lit about complexities at the science-political interface (even though I think I have a pretty good background in it already!) was able apply it at my work almost in real time. Much more worthwhile than other courses that rely on lecture format, especially for graduate students with work experience.   Highly recommended.

D. Increased enthusiasm for the course and increased regret that my job was getting in the way. This is my first grad course and more or less it was the work load I expected and I had an unusually busy world travel schedule and couldn't participate as much as I intended when I signed up for the course. To a prospective student I would highly recommend the course and caution the student that they have enough time to dedicate to the course and that it is a worthwhile investment to make sure they get the full experience of what the course offers.

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.

> After an introductory session in which students identify their personal intellectual and professional interests and are introduced to "Problem-based learning" (PBL), the course consists of four 3-week PBL units. The PBL approach allows students 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, guided by individualized bibliographies co-constructed with the instructor and by the projects of the other students, they learn 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. The broad topics covered by the PBL units are: ·   1. What science-policy connections are needed to improve responses to extreme climatic events? ·   2. Science and democracy: Who is included/excluded in shaping research and its applications? In what ways is that made to matter (included and excluded parties)? ·   3. Addressing uncertainty: Comparatives perspectives -- To whom and in what circumstances is it important to reduce uncertainties in the predictions and applications of research? A comparison of policy development in U.S. and Europe concerning new genetic technologies. ·   4. Education and civic engagement: How to teach and engage others to participate in questioning and shaping the direction of scientific and social changes?

A. The course delivered is definitely consistent with the course described. It really is hard to capture the nature of the PBL method without experiencing especially since we are so conditioned by standard course delivery methods.

B. I think all goals were met and beyond. All I would add is giving the possibility for more specific discussion on our specific writing assignments. If we could share that with other group member and get feedback from them, as well, would be great.

C. The course description is accurate. I think the goals could be even more solidly met if there was more time for students to learn from each other about their chosen directions of inquiry.

D. Really it is quite good, perhaps prior to the start of the class an email goes out to those who are enrolled, what "tools" will be used and tutorials and how to use them, wiki access, and anything else that might save time and allow the student (pardon the expression) hit the ground running when the class starts.

Instructor: Peter Taylor   Course: **PPOL-G 749L Scientific and Political Change**   Semester: **Spring 2010**

Numeric Response Questions	1 (Outstanding)	2	3	4	5 (Poor)	N/A	N/R	Valid N	Wtd Avg Numeric Response	Notes
Q1: The instructor's knowledge of his/her subject and preparation for class is…	5	1	0	0	0	0	0	6	1.17	
Q2: The instructor's attitude towards his/her subject is…	5	1	0	0	0	0	0	6	1.17	
Q3: The organization of the course is…	5	0	1	0	0	0	0	6	1.33	
Q4: The instructor's openness to criticism of his/her ideas is…	5		0	0	0	0	1	5	1.00	
Q5: The instructor's answers to students' questions are…	4	2	0	0	0	0	0	6	1.33	
Q6: The instructor's explanations of his/her material are…	4	2	0	0	0	0	0	6	1.33	
Q7: The instructor's ability to create an atmosphere in which you felt you were learning from other students (as well as from the material and from the instructor) is…	5	0	0	0	0	0	1	5	1.00	
Q8: The instructor's comments on my written work (including exams) are…	3	2	1	0	0	0	0	6	1.67	
Q9: The degree in which the instructor encourages you to feel free to ask questions and to express your own ideas is…	6	0	0	0	0	0	0	6	1.00	
Q11: Overall, how would you rate the instructor?	6	0	0	0	0	0	0	6	1.00	
Q12: Overall, how would you rate the course?	6	0	0	0	0	0	0	6	1.00	

Numeric Response Questions	Yes	No	N/A	N/R	Valid N	Pct. Yes	Notes		
Q10: Have you spoken with the instructor outside of class? If so, was this contact helpful?	6	0	0	0	0	0	0	6	1.00
Q13: Would you recommend the course to a friend?	6	0			6	100.00%			
Q16: Did the instructor seem to you to grade fairly?	4	0	1	1	4	100.00%			
Q18: Did you ever feel uncomfortable in this class because of your race?	0	6			6	0.00%			
Q19: Did you ever feel uncomfortable in this class because of your sex?	0	6			6	0.00%			

1. **The instructor' knowledge of his/her subject and preparation for class…**

   - I felt he is an authority on the subjects

   - Extremely knowledgeable

2. **The instructor's attitude towards his/her subject…**

   - Awesome

   - (Provides?) questioning + inquiry

3. **The organization of the course…**

   - Chaotically fantastic

   - Instructor & course – great. Web info ok

   - Promotes engage learning

   - I appreciate the alternative pedagogical methods

4. **The instructor's openness to criticism of his/her ideas…**

   - Very open

   - Open to all discussion

   - Course is based on it

5. **The instructor's answers to students questions are...**

   - Designed to make you think

   - Thoughtful & challenging

6. **The instructor's explanations of his/her material…**

   - No response

7. **The instructor's ability to create an atmosphere in which you felt you were learning from other students (as well as from the material and from the instructor) is**

- Lots of group work

- This course is a model for mutual learning!

- One of the best learning environment

8. **The instructor comments on your written work (including exams) are**

- Helpful

9. **The degree in which the instructor encourages you to feel free to ask questions and to express your own ideas is…**

- Whole class is about inquiry

10. **Have you spoken with the instructor outside of class? If so, was this contact helpful?**

- Very helpful

- Always

11. **Overall, how would you rate the instructor?**

- One of the best I've had

- Peter is a fantastic teacher!

12. **Overall, how would you rate the course?**

- I will never go back to a lecture course again.

13. **Would you recommend the course to a friend?**

- I think ALL people should take this course

14. **Please comment on the readings for the course. Which did you find valuable in the teaching methods use in the course?**

- The three texts were outstanding. Some readings were self selected due to PBL method

- The handbook of STS is good for tying all the various self-directed learning together.

- Project- based learning. Readings guided inquiry

- PBL units, discussion, independent work

- An inclusive course that does not use the banking methods (chalk-talk)

15. Please comment on anything that seemed to you particularly valuable in the teaching methods in the course.

- PBL method & Prof. Taylor openness to my exploration & inquiry encouraged my curiosity.

- Problem based learning is how all grad-level courses s/be taught

- Student focused learning

16. Did the instructor seem to you to grade fairly?

- I'm sure he will, the process was more important than the grade

17. Any other comments or suggestions for the course?

- Please repeat for future students

18. Did you ever feel uncomfortable in this class because of your race?

- No response

19. Did you ever feel uncomfortable in this class because of your sex?

- No response