Course Evaluation, Critical and Creative Thinking, UMass Boston
CRCRTH 649 Sc ientific and Political Change
Hybrid, 2014 Spring

<u>Note</u>: 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 would like to take class that will allow me to think freely, know how to do a research and work in a
group. I was satisfy and I achieve my goals. I will do the same.   Technology was my obstacle in the
beginning but I got better over time.

b) I wanted to find new ideas and methods for research and interdisciplinary work and a network of data
and contacts I can keep to keep working and maybe consult in the near future. I did achieve them and
had fun while doing it...   Time was an issue and circumstances that sometimes got a lot of attention that
I would have rather devote to course work, but I feel satisfied and enjoyed the course. I have now not
only new topics of interest, but methods that seem to work for me to pursue them!

c) My personal goal was to become more familiar with situations where politics, science and the public
domain have joined forces to sole an issue of major importance.

d) One goal was to experience the PBL teaching style of the CCT director--I thought this would help me
grow as a learner, thinker, and teacher. More specifically, I wanted the challenge of the "messier" and
"open" processes of PBL to help me focus on how I engage as a learner and to learn ways to sharpen this
engagement. I did certainly find ways I could sharpen my engagement. If I ddoing the course again, I
would keep a log for each case (the way I did for a final project in a different course) in which I kept
notes on the tasks I was involved in, the time it took, what my goal was for the task, and notes on what I
learned about my own processes of engagement.

e) I really wanted to get a better idea of how policy influences science, particularly in the medical field. I
don't feel that I learned much about the medical aspect, but that is because I was compelled to explore
other areas that I knew little about. I enjoyed learning about policies and their impacts and I would do it
all over again. My personal obstacle was narrowing my line of inquiry and also writing the briefings so
that they were succinct and focused.

f) My goal in taking this course was to use the PBL method to pursue topics in my personal interests in
more depth, and hopefully learn more about topics at the intersection of science and policy I hadn't
previously pursued, and I particularly hoped to leave with a greater understanding of and comfort level
with politics and policy-making. While I did feel like I learned a lot from pursuing my "cases" via the
PBL method, and left with interests I hadn't previously had, I realized at the end that I still steered away
from the policy side of things and didn't really go out of my comfort zone much to explore how science
policies are made, and by whom, in the U.S. like I had hoped to do. If I could take this course again I
would try to go out of my comfort zone more and really try to gain a better understanding of the political
side of things.

g) "Did you achieve your personal goals?   Yeah, I learned to take the cases and to know my general
idea and then slowly bring it down to a specific topic. I was able to go with it • which is one of the
things I had written in the bridging the gaps section of my profile. Although I didnt gain a greater

interest in technology.   How would you have proceeded differently if you were doing this course again?

Try harder to connect things with technology, it was something I was apprehensive about and since my topics didnt deal directly with it or at least in a major way, I kind of crept by it. I think I cheated myself a bit with it. What have been your major personal obstacles to learning more from this course?   Dealing with confusion and not really knowing what was going on or what I was doing, but, continuing and learning from others. I was frustrated and had to step back at times because I knew if I kept trying without a break Id get overwhelmed. "

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 really like the facts that this is a hybrid. I could see online friends from far away. I learned a lot from my peers and professor. Engagement students into a project is a productive way.

b) Pay attention, listen to others and interact in a positive way. Add to discussions with ideas, readings and suggestions... I also think it helps a lot to get closer to classmates and develop a relationship also outside the classroom with a few ...

c) Obviously the online students are at a disadvantage but could be more involved if a new system was organized. The Wiki works better than the Blog and "old-fashioned" e-mail between class members with copies to the Instructor may be more functional.

d) I learned that structured conversations and structured individual reflection times can be powerful ways to build a learning community. Also I realized that Dr. Taylor's repeated references to the online students reminded us that we were part of the class. and brought us into the community. He could have just addressed students in general, but in every session he would mention the online students directly (perhaps mentioning specific ways for them to engage in a class activity)--in other situations it might be easy to "check out" as an online student, but he brought us into the experience.

e) As an online participant I learned that you really must do your best to contribute to the conversations. It's easy to go on without your thoughts being heard, but with the help of Dr. Taylor and the watchful eyes of the students in the room we were able to speak up when we needed.

f) The instructor had to use a variety of methods to engage our interest with the 'cases' before sending us on our way to explore them, to make sure we felt comfortable and interested enough to perform work on them in our own time. He was successful in doing this, by assigning shared readings about basic STS theory to jump-start discussions, holding in-class discussions where we could learn from our classmates and their interests, and also holding one-to-one meetings with the instructor where we could talk more about our own individual interests and concerns.

g) Participation is key, even if the topic is not one that everyone cares a lot about, having people get involved creates conversation and conversation stimulates ideas. These ideas allow for people to relate topics to things that they, in particular, are interested in.

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 design of the course is very special.   The course exceed my need and my expectation. The course if good but it need help with website.

b) The 5 Phases approach, the freedom to choose topics inside the cases, and professor´s advise, support and network of connections with real life experiences made it different and special. I loved this course!

c) The best aspect was the ever-present availability and knowledge of the instructor. The negative side was the concept of picking some topics that were really not that interesting. generalized topics would be better.

d) The course is special because of its PBL approach and Dr. Taylor's efforts to help learners become more responsible for and engaged in their own learning. The course met my expectations in the sense that I assumed there would be challenges related to PBL that are not always present in more traditional classes, and that these challenges would provide opportunities for me to grow. I think one way the class could enhance what it already does excellently is to address at the very begining of the class some of the "negatives" that could be associated with PBL--this was not an issue for me but I am thinking that if someone was unfamiliar with PBL or if he/she was expecting a traditional learning environment, the discrepancy between his/her expectations and the realities of the course could be very frustrating. Maybe a more direct: "This could be VERY frustrating--here are some examples. This could be very SCARY-- here are some examples. Here are some attitudes people tend to have about traditional learning that usually DO NOT WORK WELL in PBL." --In other words, maybe really hammering out the point that this class is different, that it's an adventure, that the rules of the game are very different--maybe this would help set people up even more for what's to come.

e) This course was unique in the way that information was organized and presented. I found that the assignments were vague and left me confused about how to proceed. I often wondered if I was doing the assignments correctly. This could be improved by re-writing the assignment goals or including a few points that you would like the students to address in each specific case.

f) This course was very unique from any other course I have taken, in that the coursework is entirely independent project-based and gives the student the ability to choose any topic of his or her interest within a specific "case" or prompt and then conduct research outside of class, with the ultimate goal of preparing a presentation and "product" demonstrating what you learned about your topic. I loved that it allowed me to explore my own interests, and the course definitely exceeded my expectations on this. Seeing the synthesis of mine and all my classmates' topics on presentation days was really cool, to see how we all chose different angles on the same "case" and then learned so much about these angles. The only negative thing I felt was some confusion about was what the course expectations were week-to-week. The timing of assignment due dates was a little hard to keep track of, while also keeping track of the necessary preparation for each class. It would have been helpful to have a more clear list of week-to-week assignments. There was a week-by-week list on the syllabus but it didn't include all of the smaller assignments/participation activities for each week.

g) What was special about this course was that it was very self guided and allowed students to make the course their own. Due to this students where able to stay interested and this is not common in many courses.This course was just about what I had expected, I knew it would be challenging. I enjoyed the course far more than I thought I would. When I came in and heard the stories of the difficulties I thought to myself that I was in way over my head. Once I dove in I felt like I was really learning to self guide.I think that the course could be improved towards in the end in regards to the final project, it was a bit dizzying trying to figure out the plan for the class. Also the weekly readings began to fall through so maybe a bit more structure to the weekly readings and the minute check ins. Timing was an issue because with all the students it was difficult to get everything in.

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) At first I wanted to drop this course because I was afraid that I will fail. How ever my attitude change because the professor was very supportive. This course is very unique and I like the way it is. I would like to recommend the prospective students to enroll this class it is a good class that can prepare you to become a good researcher.

b) At the beginning I was not too sure I was doing things as expected... I was a bit lost in the logistics and methods, all new to me... But keeping in close contact with classmates and teacher, and working with real interest in learning about the topic of choice while satisfying the requirements for the case in the given framework, worked just fine and after case 1 I felt empowered to keep going. Very motivated, excited to meet in class, the 3 hours went very fast with lots of my attention in there, and I learned new things and methods in every class. A great experience for me. Recommendation: come with a set of REAL interests and projects to this class and you will get them going for sure. It is an opportunity to get advise, ideas, support, time and attention to devote to them, and make connections in real life... Do not waste time, just take yourself seriourly ;)

c) This course was made more complicated than it should. By handling the housekeeping issues to such a degree that they actually took time from the purpose of the course, namely research.

d) At the beginning I felt some pressure to discover the "rules" of the course and to figure out how to procee. This changed and matured into being more focused on how I was learning. My overall recommendation is: take the course! but be prepared for all the rules to change and view the class as an opportunity to develop tools for learning.

e) I gained a better understanding of how the course was taught and I began to get more comfortable with the way assignments and information was presented. Compared to my other courses it was a bit less formal/organized, but that also allows for more creativity and freedom with choosing your topic for each case. Overall I would recommend this course but also inform students that the format and flow of the course are quite different from other courses and that they should not worry too much, just let your ideas and thoughts come naturally.

f) In the beginning of the semester, I was a little confused about what the expectations were for the presentations and products because I had never done a PBL-based class before and so was used to the more traditional format of having step-by-step grading rubrics to match for assignments. Once I got into the swing of choosing my own topics, researching them, and producing a "product" based on my individual inquiry, I got a lot more comfortable with the PBL-style and enjoyed it, and didn't feel so confused. I would recommend to prospective students to not worry about not understanding expectations so much in the beginning of the class, they'll get used to the rhythm of the course and will come to appreciate the chance to explore their own interests in a project-based course.

g) I became more confident in the course and was able to relax a bit in the sense of I understood the format and the flow so I was about to enjoy the process.This class is completely different.If someone likes research and being able to self guide on a topic, take this course.

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.

Course Objectives:

1. To 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;
2. To re-engage with yourselves as avid learners and inquirers; and
3. To organize 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.
What makes the re-engagement in #2 possible is a combination of:
the tools and processes used for inquiry, dialogue, reflection, and collaboration;
the connections they make with other students (and guests) who bring diverse interests, skills, knowledge, experience, and aspirations to the process; and
their contributions to the topic laid out in the scenarios from which the PBL units begin

a) I learned about how important of the policy and its influences that is has on science and technology. 2. I did a lot of work in order to meet the require of the course. 3. The PBL 4 is a excellence case for engage the students and members of the communities.   Over all the course met it goals. I had great experience.

b) Would benefit from a framework of public participation (Handbook will do) 2. excellently met 3. Case 4 needs to be iterative, go through it at least twice so one can improve what did not seem to work (timing and observation in my case, I would have liked a second chance to organize it differently and test new ways to apply it) But, I leave with a set of experiences and new tools that I believe will help me reach my goals outside class... in the near future.

c) Personally, I thought the discussion on political influences was a bit weak. I can assure you it does not happen like that. True learning comes from research and self-teaching and not from seeking out other comments. Thus course did not allow for enough proper research and readings for a member to actually create a research paradigm.

d) 1 This goal was addressed very well throughout entire course. Course readings made great contributions to this goal. I actually wish we could have had more class learning activities centered on some of the readings. 2. This goal was certainly met. I feel that re-engaging with myself as an avid learner and inquirer is the number one take-away for me from this course. 3. I think this goal, being prepared with resources to teach/engage others in science policy issues, was accomplished but was also the goal that is least guaranteed out of the three. I think one reason goal number 2 is met is because of the PBL format and Peter's excellent teaching style, but both of those factors might make goal number 3 harder to meet in the sense that if students have freedom to explore their own PBL cases, they may not take them in a direction that helps them learn to engage others in science policy issues. For example, I see that we tended to focus on science-related issues that itnerested us, but not necessarily issues that were truly science policy related.

e) -I think I've had the most success with #2, re-engaging with myself. This course allowed each member to follow their own line of inquiry and really explore what they wanted to. I've never had so much freedom in a course and it helped me learn more about m

f) Personally, I feel like I didn't meet the first goal very well for myself, because as someone coming into the course with little prior political knowledge, I tended to steer away from in-depth research about "political influences" and instead focused on the development of science and technology and how they influence or are influenced by society. I didn't really delve into the politics much. I felt like goal #2 was really well met for me. I was definitely more engaged in this class, which allowed me to pursue individual interests and in doing so learn more about myself as a learner, than in my other more lecture-based or test-based classes. I thought goal #3 was well met when we all came up with our own ideas for an "engagement acitvity" in the final unit of the course. This was my favorite part of the course because

I got to see all of my classmates' ideas for activities based on everything we'd learned about engagement and scientific and social change over the course of the semester.

g) In the end the goals are met, but the presentations through out the semester aren't as geared to engaging others like the final project is. I think that there should be some explanation in the process and also made clear that a student will be presenting often.

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 class is enrich with engagement and freedom. I can choose my own topic that relate to the case that I study. I learned how to do time line, to e-trail and run a project that might impact the world. I really enjoyed this class and it was always kept making me excite every class. You will never be bored if you take this class. I got a lot of of this class. This class is highly recommended. You will learn a lot.

b) This class is about discussions about how science and technology interact with policy... I had a particular interest in them as they concern to education for variability and tech innovation. I did learn with this class about how science and government interact, while researching about education. This is a class that teaches a clear topic and allows you to look at it through your own lense. Pick your topic and just relate it to science and technology interaction with policy. You will just feel you are getting so much done in short time! It also gives you tools and methods about how to start dialogues, how to present your finding to others for feedback, and how to discuss scientific/technological topics in relation to policy, how do they become real? Ideas and methods for research and interdisciplinary work plus a network of data and contacts you can keep for working and maybe consult in the near future are a few of the many assets you will leave this course with. Great experience!

c) Looking back at this course I think the title and goals were excellent but the methods of achieving these were somewhat constricted. Each and every presentation seemed like the same thing and no innovation was allowed. Simply being a socially conscious person is not enough--one needs to be able to teach others how to become compassionate. I did not hear any report of the four cases that was "passionate". Perhaps two larger case presentations would be better than four smaller ones.   An example of this would be a class project to create an NGO from the ground up that utilized science, politics and the public for a viable purpose and, at the end of the term, turn it over to the school as an operational, charitable, focus group.

d) This course uses a unique problem-based learning format that will challenge you in ways that traditional courses cannot. Dr. Taylor's teaching style encourages a learning community where people share ideas with one another, provide feedback, and learn from each other. If you embrace it, the class format will help you learn to take more responsibility for your own learning and to learn in ambiguous or perplexing situations (how do you proceed when there are no rules or procedures dictating the next steps?).

e) This course shows you an alternate way of approaching issues with a focus on the political side of how decisions are made within a scientific field and how those decisions can be influenced. You're given the freedom to explore whichever topics interest you, so the content is easy to stay engaged with. The freedom to select your own topics provides a learning experience that is unique and allows you to learn more about yourself as a student, learner, researcher and curious inquirer.

f) This is a class for people who enjoy individualized, project-based work, and who would enjoy a class where you can choose your own specific interests based off of a prompt given to everyone in the class, and then pursue, and build on, those interests in-depth over the course of the semester. Even if you do not have any prior scientific or political knowledge, you will learn a lot about how the two are connected, how people organize at the citizen level in order to create change in science policy, and how science policy influences people's lives. What really drives this class is student engagement and interest. It requires that all of the students be truly invested in themselves as learners and in really pursuing their interests individually, but if everyone does this, it can spark really cool discussions when everyone presents to the class about what they learned during their individual inquiries on "cases," and you can see the intersections between everyone's different topics.

g) "Scientific and Political Change is a course based on student guided learning and students engaging one another. The class acts as a helping group to enable students to branch out and follow topics of research that interests them. Following professor given cases the students will narrow ideas to find a way to focus, research, and present a topic relating to the case, science, and politics. Every class meeting allows for students to talk to one another and hash out ideas and concerns and at times the classroom can become a guided group discussion that allows for further understanding of the process and can help students find their own path. The class blog further allows students to communicate and delve deeper into their research. Communication is key in this course; if someone is confused they should speak up because chances are that someone else is confused to.   Each case builds to the final project which allows for students to really dig into a topic of interest and present it to the class as a teacher and to engage the class in a way that can allow their peers to go into the world and to be able to debate or present the information in a way that can make a change. This is the most important part of the class to me. It's an ending that really gets a student excited and allows for students to really understand what it takes to enlighten and engage others.   Although the class is fast moving and can be painfully overwhelming at times, the key is to keep moving, keep learning, and keep asking questions. Stepping out of ones comfort zone allows for the most gain in experience and the greatest sense of accomplishment. "

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) Yes
f) Yes
g) Yes

Using the scale below, overall, how would you evaluate this course? [1. Very Poor, 2. Poor, 3. Average, 4. Good, 5. Excellent]

(AVERAGE = 4.57)

a) 5
b) 5
c) 4

d) 5
e) 4
f) 5
g) 4

Using the scale below, overall, how would you evaluate this instructor? [1. Very Poor, 2. Poor, 3. Average, 4. Good, 5. Excellent]

(AVERAGE = 4.86)

a) 5
b) 5
c) 5
d) 5
e) 4
f) 5
g) 5