

2010-2011 Seminar Participants

"Incorporating problem-based learning into Principles of Environmental Science"

Prof. Sue Mooney

I have recognized that it is time to take my teaching practice to a higher level, incorporating theory more deliberately into my course design and implementation as well as generating more scholarly work of my own on teaching. Five years in administration drew me away from my scholarship (in philosophy and history of biology), and my commitment to teaching drew me back to the faculty motivated to contribute to the scholarship of pedagogy. I have presented much and published some in pedagogy, but I am now at a point in life when I can contribute more to our understanding of the art and science of teaching and learning. Having this opportunity to deliberately study teaching with colleagues, with the guidance of TLC experts, will assist me in this endeavor. And this support will help me achieve my goal of promotion to full professor.

Largely through collaborations in Learning Communities, I have begun employing problem-based learning (PBL) in some of my teaching. I have learned by doing, and know only what I have picked up from my partners. I'm sure I have much to learn about the theory or best practices in this pedagogy, especially as it related to the sciences. Choosing to focus on PBL for this proposal has also been prompted by an opportunity to learn and test STEM (Science Technology Engineering Math)-PBL related to environmentally-sustainable technologies. This is through a New England Board of Higher Education program, involves collaboration with a secondary school partner, and includes some training in STEM-PBL. I am anticipating that whether we are chosen for this opportunity or not, I will need time and collegial support in 2010-2011 to broaden and deepen my understanding – and find ways to apply PBL (and to study its effectiveness) in other content areas I teach (science, ethics, and the various interdisciplinary LC courses).

My primary project is to incorporate more PBL into my EV200 Principles of Environmental Science course, especially around sustainability (e.g., alternative energy technologies and the science theories/phenomena behind them) and environmental health (e.g., assaying for exposures to toxins, like lead paint, arsenic, etc). With the new science center I now have access to lab space for this Cornerstone science course, and I can expand and elevate the "doing" of science by the students enrolled. I've attached the current syllabus for that course. After completing the TLSS work, the syllabus will demonstrate that more sophisticated science is being done by the students enrolled.

My goal is to not only enhance my own teaching effectiveness, but to develop greater familiarity with pedagogical theory and various means of assessment of learning. I plan to present and publish better and better work in the scholarship of teaching, and to serve as a resource to my colleagues here at Stonehill in their efforts to do the same. As you perhaps know, I am always willing to share what I know

(or what I think I know) – at Teaching Roundtables, on Academic Development Days, and in the hallways! And I would love to contribute toward developing more opportunities for Stonehill teacher-scholars to refine and share the knowledge each has amassed: perhaps hosting pedagogy conferences; forming our own interdisciplinary journal of pedagogy; etc.