Professional Development Plan Activity Report
[Insert name and date]

This past October I attended the Teaching Technology Conference in New Orleans. This was a 3 day consortium of panels, presentations and workshops focused on the development and design of engaging distance education courses. Presenters were faculty Champions from around the country who could speak to personal experience and suggest implementations (free and for cost) that make learning more fun, dynamic and conducive to our technological youth. This conference provided me with a number of resources that I investigated with the hopes of making the BI101 online course more interactive including pop up video recording quizzes, piktograms and stop animation videos.

After taking the QM rubric course last April (2015), I have been gearing up for a full course redesign for the BI101 class, making it ready for QM evaluation. This conference provided me feedback and ideas to help make the course a standout. I am hoping to coordinate with Bruce taking the next phase of training QM reviewers (perhaps over summer) so that I can continue to learn what other schools are implementing and keep our courses fresh and robust.

My big project this year was the re-establishment of the greenhouse. Over summer the space was cleaned, organized and a set of starter plants were purchased. We've had a few casualties as a result of faulty (old) sprinkler equipment, which lead to a proposal for additional funds from the bond. It was decided that it could come straight out of the science budget, so I will be making purchases shortly for additional automated water systems and spikes. Across 2 biomes we have about 30 specimens growing. With spring approaching, I will be making additional purchases and starting new seedlings as well. I goal is to use the greenhouse to make the BI213 (majors level) botany section more dynamic. I have been working on course curricula for them to explore the investigating correlations between form and function for example, can they determine where a plant lives based on its leaves. I will also be implementing color boxes so that students can see how varying wavelengths affect growth and development of new seedlings.

In addition to new plants, the greenhouse has a working compost and thanks to the approved proposal, will soon also include an apiary. I am in the process of developing curricula that will correspond to the actual maintenance of a hive, but at its core, students will be able to examine the unique societal structure of bees in action, hive inspection for pests, pulling honey, requeening, overwintering, and build an appreciation for the world's most prolific pollinators.

I continue to oversee the Dual-Credit and Eastern Promise program in Biology. I have been working closely with high school faculty to provide mentorship and training. This past year professional development included providing instructors with a refresher on scientific literacy (where to find articles, how to gauge their importance, parts of a paper) and provided instructors with 4 in class assignments that they could use as alternatives to lab activities. I also did a refresher on scientific research and grant proposals and provided faculty with 2 course activities that could also serve as alternatives for labs. To date, that has been our biggest hurdle. Many of the schools do not have adequate lab spaces or funds for the equipment necessary to complete the required 8 labs per unit. To that end, I applied (and was granted) for an OER grant to use my summer time searching through the Biology Curricula available in the OER repository to find labs with minimal cost, equipment or those that are easily scaled down to a small class setting. I have been building Eastern Promise Ecompanion shells that will distribute this "shared" and vetted content to all instructors with an aim to make our varied sections more standardized. Additionally, I applied for a STEM Science Instructor Training program through the Exploratorium in San Francisco, which would be a 3 week program emphasizing hands on models and the integration into curricula. If accepted, I hope to bring them back for implementation both at the college level (majors and non majors including Eastern Promise), but also to the community as I volunteer at the Children's Museum and have hosted several monthly science clubs.

The professional development I offered the High school instructors ignited my own passion for engaging in the scientific academy. I test piloted 2 courses over winter. A BI199 and a GS199. The BI199 was a scientific literacy course, which focused on teaching students how to read scientific articles, how to analyze their findings and how to present information in a professional manner. While largely under enrolled (a whopping 4 students), they all enjoyed the course and found it very informative, engaging, and useful in their majors science courses, many of which reply upon students reading supplemental articles. The GS199 course started off as a "how to conduct research" course with its backbone heavily built on the Phi Theta Kappa Actions in Honors Program, due to the again low enrollment (3 students), I adjusted the course focus to research skills and learning how to write scientific grants, which placed a large focus on having students devise their own set of experiments – what they would analyze, how they would do it, what variables they would need to control. Again, the feedback from students was highly positive. I plan to offer these courses again next winter before bringing them to the curriculum committee my only change (in addition to more advertising) is to have them be offered as GS 198 (Special Studies- Grant Writing) and GS 199 (Current Events- Journal Club), as it is not biology specific.

As far as my personal development in the field of science. I am in the midst of revising Essential Microbiology for its second edition. It involves mostly cleaning up the chapter's language, but also will incorporate more practice problems and answer keys for students. I continue to work on

a now 25 year review of larval ecology. I is slow going as I simply have not had adequate personal time to commit to it, but I refuse to give up.