Centre for Teaching and Learning: Summer Student Report

During the summer, I worked with Dr. Allen Good to develop supplementary material for Biology 207, a large enrolment, core course in the Department of Biological Sciences. The aims of the summer project were:

1) Develop a set of problems, within each of the key areas of genetics that both students and instructors use as learning tools.

2) Develop a set of Web based learning tools associated with each of the based subset.

3) These problems will then be designed with a set of answer keys that effectively “teach” or instruct students in how to dissect/ de-convolute a genetics problem.

4) Design the problem set in a manner that is searchable using a set of key keywords/ concepts.

5) Develop a mirrored set of student problems for instructors only to allow revision of and communication about questions within the set among instructors.

During the summer, I compiled more than 100 past midterm and final exam questions from two previous instructors of Biology 207. These questions were transferred into a spreadsheet where I categorized and tagged the questions based on topics and subtopics in Biology 207. This created a searchable database of previously used questions that instructors could use as a resource and annotate where and when they used these questions. I was able to speak to all four instructors of this class and got a deeper understanding of the diversity of teaching and testing styles. This project could extend beyond one summer. Future work on this project could endeavor to use this data to create a smaller student resource that could help guide students through complex genetics questions and help develop their problem solving skills. This future work is beyond the scope of this project, but could be undertaken with the support of the Department.