CTL Summer Student Award
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Team-based learning is a teaching strategy that has been implemented in a variety of disciplines to promote active learning (Michaelsen 2008). This teaching strategy places the responsibility of learning on students, assigning pre-class readings in preparation for class. In class they receive readiness assurance quizzes (individual and group) as well as in-class group assignments. Ideally, the readiness assurance quizzes ensure that students’ grasped a basic understanding, while the group assignments focus on developing a deeper understanding of the course material through application of the learned concepts. This summer I worked with Dr. Neil Haave on incorporating the 4S model into the team-based learning curriculum of his molecular cell biology course. This model consists of group assignments designed to be (1) significant to students, (2) the same problem attempted by all students, (3) a specific choice made by all students and (4) subsequently simultaneously reported. The problems were modified in a variety of different forms such as multiple-choice, selection of a certain point on a graph, or choosing the appropriate image to explain key concepts. This allowed students to select a specific answer as well as simplify class reporting. These changes will improve the next implementation of team-based learning by enhancing potential discussion within and between groups, while also reducing the amount of time spent on writing long answer questions. Additionally, throughout the summer I constructed assessment plans for each chapter. This entailed connecting questions from the group assignments, the midterm and the final with the learning objectives throughout the course. Also in the assessment plan, each question was classified under the cognitive domain of Bloom’s taxonomy. These plans ensured that all of the learning objectives in each chapter were covered in the readiness assurance quizzes and subsequent applications and that these questions contained an appropriate cognitive level for second year molecular cell biology students. It is my hope that the changes to the course will aid the learning processes of students and provide them with a positive experience with team-based learning.