Statement of Teaching Philosophy

Each student is an individual who brings to the classroom his own knowledge and beliefs; learning is a process in which the student incorporates new knowledge or viewpoints to build upon or modify that knowledge. This process happens not just in the classroom but also through social interactions and experiences. Teaching, on the other hand, is guiding these students in a way that allows the student to learn new concepts or information and apply them to new situations.

Through my experience teaching, I have developed four major teaching goals that I will implement in my own classroom. I chose these as essential goals not only because they are important in training the next generation of scientists, but because they help to train people to be better citizens of society as a whole. Students in my class should:

1) Develop a base of knowledge in the field. My teaching experience has mostly been in sophomore-level biology courses where establishing a solid base of knowledge has been crucial. Some basic knowledge is required in order to appreciate the content of the course as well as to continue on to further courses if the student chooses to do so. As instructors we tend to consider that base to be larger than the students do, but there is some basic information that students need to understand before leaving the course.

2) Recognize the context of basic knowledge in this field and in other fields. The knowledge that students gain needs to be placed in context of both the field and others. Students learn better and have a more comprehensive grasp of concepts if they can see not only the application in their own field and its relevance, but see how it relates to other subjects and courses.

3) Develop the skills necessary to ask questions and find answers. Students need the skills to ask questions about science and the world around them, and to find the answers. Science is a process of asking questions and finding answers, and understanding that process is important in understanding that science is not static. They need to know where to find answers, whether on the Internet, in a textbook, or by performing an experiment.

4) Demonstrate the ability to assess the validity of information. More so than in previous generations, students have the problem not of an absence of information, but rather of an overabundance. To be successful in today’s society, students need the skill to sift through this information and analyze its source and validity. Students must realize that just because something appears on a website or has been printed, it is not necessarily accurate or correct. This skill informs decisions from choosing a doctor to buying computer equipment. Specifically, scientists need this skill to make judgments on whether experiments have sufficiently proven what the authors claim.

Teaching at the university level has traditionally been a process of lectures and exams that propel students toward an eventual degree and career, but I have come to realize that teaching is a process that can take many forms. Sometimes teaching involves coaching a student to explore new concepts. Sometimes it involves forcing students into situations that require them to think and learn. Being flexible in teaching, both to the needs of students and to their backgrounds, is essential in guiding students to learn. As a teacher, I am a coach, an advocate, a leader, and a partner in my students’ learning, but I am also a student myself—continually amazed by all my students teach me each semester.