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### **Statement of Teaching Philosophy**

I had led many laboratory sessions and had given the odd lecture, but it was the first day teaching my very own class. Standing in front of fifty-one Princeton undergraduates, I was so nervous I wanted to throw up. I am still nervous whenever I start teaching a new group of students, but to me, these feelings signify something positive. I am nervous because I genuinely care about my teaching. I think that, more than anything else is what makes me a good teacher.

I have always found teaching to be a two-way street, a forum in which information and experiences, both my own and the students', are shared to learn not only new facts and techniques, but also new ways of looking at things. So for each lecture I set out to accomplish three goals: I want to inspire students, to challenge their assumptions, and of course, to effectively exchange information with them. This is not easy. First and foremost, meeting my goals requires that I not be afraid to express my own enthusiasm and love for the field of biology. To get students thinking, I raise questions, sometimes playing 'devil's advocate' to encourage discussion and debate. Finally, I am thorough and prepared, but also flexible; always allowing for student input and adjusting my pace to meet that of the students.

Whatever the topic, I always do my best to enthuse students and make lessons come alive for them. One way I do this is to use in-class demonstrations whenever possible. The 'two point discrimination technique', for example, is very effective for teaching the physiological mechanisms of the mammalian sense of touch. I bring a volunteer to the front of the class, blindfold the student and then 'poke' him or her with chopsticks at two separate points, first on the finger and then on the forearm. In an area with a high density of receptors, like the finger, the subject can easily discriminate between the two separate points of contact. The opposite is true for an area with a lower density of receptors, like the forearm. The chopsticks have to be applied over and over again, farther and farther apart, before one is finally able to discern the two points of contact. Using simple demonstrations such as this one ensures a more complete understanding of a particular concept. Perhaps more importantly, it fosters a classroom atmosphere open to discussion and fun.

But the classroom is not the only place in which students can learn. If I am to challenge the notion that biology is simply rote memorization, it is important that I get the students out in the field or laboratory, where biologists really do their work. Biology involves trial and error, making 'guesses' about what we see in our surrounding environment, and then testing those guesses. As a student, I always preferred hands-on involvement to note-taking, and I incorporate these experiences in my teaching as much as possible. As Co-instructor for General Biology this summer, I designed laboratories and assignments that brought the students out to the local forests and lakes, and then back to the lab to extract DNA from their samples. These exercises demonstrated not only the concepts we wanted them to learn but also the mechanics and pitfalls of field biology.

Finally, I call upon my own experiences and enthusiasm not only to more effectively exchange information, but also to instill an appreciation for the subject matter. If students can relate what at first seems an obscure concept to a personal experience—voilà! A deeper appreciation for the concept and, perhaps an inspiration to learn more are achieved. Biologists are in the business of inquiry and so I encourage questions and discussion during lectures. It is important that students feel comfortable approaching not only me, but also each other with issues and concerns. Asking questions is no small feat for the typical Princeton student; many are reticent to admit ignorance of any subject. But once accustomed to it, they are quite responsive to the more open and accepting atmosphere my classes provide. At the end of each term there are always students coming to my office, smiles wide, asking if there is another class they can take with me the next semester. I have yet to experience anything as rewarding.