

Teaching Philosophy

Timothy Zick

There are three things I especially love about teaching: the students, the material, and the performance. Firstly, the students are interesting and I enjoy the challenges they bring. Also, the material lends itself perfectly to a holistic approach of teaching with many real world examples and applications. Lastly, the performance aspect keeps me thinking on my feet and striving toward student participation and understanding. I will now elaborate on these points.

The students are interesting in that they have come from many different mathematical backgrounds and are diverse in terms of both their knowledge of mathematics and in their desire to be involved. I have taught many different levels of courses and it is interesting to see the difference between, for example, an average student in High School Algebra and a student in Calculus III. The students who need, and seek, extra help challenge me to dig deeply into my bag of teaching knowledge and resources to find a new way of looking at something they do not understand. I find this exhilarating.

The material to be taught is also interesting. The fact that mathematics has so many applications – from the day-to-day usefulness of basic math skills, to the intricacies of applying calculus to engineering and business models, to the abstract concepts that keep our computers running – shows that the field is an exciting one which has such a profound impact on everything we do. The nature of mathematics also lends itself to a holistic teaching approach. We can always look back on what we have learned to help us with what we are learning currently. This, in turn, allows us to look forward and see where we are going.

Finally and, admittedly, strangely, teaching gives us a chance to get up in front of a group of people and show them something new and exciting. Certainly if we are not passionate about the material, the students will see no reason to be passionate either. I try to keep my classes entertaining to ensure that the students stay involved and interested. Another facet of the performance is that we must be ready for a wide variety of questions at any time. This challenge is yet another exciting aspect of teaching. Also, the use of technology blossoms from the performance aspect, allowing us to show students such things as graphs, sources of extra examples, tutorials, and to keep students informed and on track. I keep and maintain websites for my courses and try to find outside links to more practice problems and tutorials. I also use the computer projector to look at more visual concepts such as three-dimensional graphs and have allowed students to choose writing a program to do some interesting mathematical calculations or discoveries as semester-long projects.

Putting these concepts together has led me to become a successful teacher. My student evaluations from the semesters when I have taught have all averaged above 4.0 on a 5 point scale. I have discussed teaching methods and philosophy with many of my fellow teaching assistants and professors at Iowa State. I have led discussions on teaching mathematics with my Upward Bound colleagues.

Perhaps above all, I look forward to new challenges in teaching and hope to continue being able to be a teacher for the rest of my life.