Mathematics is known as an abstract but fascinating subject. It is always a great pleasure to show my students the beauty and usefulness of math, the fun to learn and the excitement of solving a math problem. Therefore I always share my passion by offering my students concrete examples to play with, encouraging them to think and doubt, and conveying to them why it is natural to do this and that in math. I hope my students not only memorize formulas and methods, but also understand how we derive them and gradually develop lifelong problem solving skills.

In my math career, I have teaching experience at flagship public universities. My teaching assignments have put me in contact with a diverse group of students majoring in mathematics, biology, engineering and many more. The class size ranges from small classes of around 30 to large sessions of over 400 students. I have served numerous times as independent instructor who handles everything of the class from designing lecture notes to making exams. Student evaluations have been very positive with many students recommending me to their friends.

I believe one of the most important pedagogical skills a good teacher should have is to create an interactive classroom atmosphere for his or her students. I always encourage my students to ask questions and keep a friendly and conversational environment in class. When teaching a difficult concept, I pause frequently, waiting for questions, and looking for signs of confusion. I adjust the pace of lecturing according to students’ feedback and make sure everybody in class is on the same page. Even in my large sessions, students are not afraid to ask many questions and I was very happy to interact with them.

Students understand concrete examples better than abstract theories and proofs. Therefore I do not hesitate to give examples whenever possible. I like to lead my students find their own answer by using illustrative examples. For instance, when teaching the fundamental theorem of calculus, I start by discussing examples in which the region under the graph of a function is a simple shape such as a rectangle, a triangle, or a semicircle, and then point out that the area has something to do with the anti-derivative of the function.
More often than not, someone in the classroom will realize the correct relation, and after some explanation, most of the students will understand the proof of the general statement without too much difficulty.

A good teacher should always look for ways to improve his or her teaching skills. I still remember that once I was not satisfied with the way I teach the concavity theorem. Students tended to be confused about the relation between the second derivative and concavity. I did enormous amount of search on the internet, asked my colleagues for suggestions and finally figured out a good way. I told my students that the shape of (the graph of) a concave up function looks like a smiling face, which corresponds to positive second derivative and similarly a concave down function looks like a sad face and thus negative second derivative. It worked out very well and I was really happy about my improvement.

I believe that teaching is an act of explaining and questioning that leads to self-growth. As my students grow mathematically, I always feel encouraged and believe that I am growing with my students in every respect. I enjoy teaching mathematics tremendously and am committed to striving for excellence in all my classes.