Teaching Statement
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Everyone has their own teaching philosophy. But to me, teaching requires dedication and willingness, along with paying close attention to students and making it interesting. Also, mentoring students academically and in research is part of my goal as an educator. Besides, I earned a certificate in College Teaching, which indicates how serious I am in becoming an effective educator.

STUDENTS’ UNDERSTANDING IS THE MOST IMPORTANT ASPECT

“The instructor was the best part of the course. Very helpful.” Calculus IV student.

Being a Visiting Assistant Professor at University of Cincinnati (UC) and an instructor as Worcester Polytechnic Institute (WPI) allow me to interact with diversed group of students with different interests in their career goals. In fact, WPI is a more technical school where majority of students select majors relating to engineering background. Whereas, at UC, I have students from chemistry or biology majors to business focus in my class. This makes it more challenging for me to prepare for lectures. I have to make sure that I find multiple approaches in explaining course material effectively so that all students can understand the lecture after leaving the classroom. I also try to quickly summarize last class materials before diving into new lecture. This refreshes students’ memory and helps them make connection from one lecture to another. I have never forgotten to take a few minutes to make sure students followed my work and understand the concepts. Besides, there is a method that I like using during class when we have time. That is, I show one or two small examples on the board then students would spend the next five to ten minutes doing similar problems on their own. I walk around the classroom and have quick conversations and explain the solutions one-on-one with students if they need to be clarified. By using this approach, students pay more attention during class. It is also a great opportunity for shy students to ask questions, which they would not normally do in front of the whole class.

MATH IS BORING. LET’S MAKE IT INTERESTING

“He was excited and cheerful about the material which is very important to me.” Math Modeling student

Being a student as an undergraduate and graduate, I had seen numerous situations when students were falling asleep and paid no attention to the lectures. I wondered if it was the students’ problem or if mathematics is in fact so boring. I came to the conclusion that the professors play a big role in sparking students’ interest in the subject matter. I was lucky enough to be the teaching assistant on a number of different courses including Calculus, Differential Equations, Math Modeling, Boundary Value Problems, as well as Numerical Methods. The experience showed me that teaching can, in fact, excite students if one can find different ways to approach the lectures instead of just simply writing equations on the board. One way to do it is to use technology in the classroom. The lectures can be so tense sometimes. By blending a few graphs or videos or even a few lines of codes, the instructors can help students pay more attention to the material. For instance, in the Math Modeling course, I used pplane8, an add-on Matlab file, to view different mathematical models graphically including epidemic models, and predator-prey population models. For the Numerical course, it was a great experience for students when they had many chances to discuss programming using Matlab, C++, Maple, or Mathematica. They really wanted to know at least one coding language before graduating,
which is a good thing to do. Or as the primary instructor for Calculus III, I let the students watch a youtube video, created by Cristóbal Vila from Eterea Studios, showing how commonly Fibonacci sequence appears in everyday life objects in nature. There was nothing like seeing students getting excited about simple images that explained the ideas of a complicated formula. That was an "I get it" moment. It showed me the methods I used were working. And that matters.

DEDICATION IS ESSENTIAL

“Very helpful. Always willing to put in extra time to help .... Would highly recommend to anyone.” Calculus student.

If one is not dedicated in their teaching, then one should not become an educator. Teaching is not easy. In my opinion, being an educator is more than just going to class and finishing the grading. It takes time and effort to master the form of teaching that can capture students’ attention and convey the knowledge to them. Besides, it does not matter if you are a teaching assistant or an instructor, most of the students always feel intimidated when approaching you for questions at the beginning of the course. Knowing students’ names as early as possible helps them feel more comfortable to come to office hours. Every student learns Mathematics at a different pace. Some may quickly understand the material but some may not grasp the idea until later. I am always willing to put extra attention and time for students who need more time understanding the lectures. If students were not available during the office hours, I did not mind finding some different times to meet with them.

MENTORING REU STUDENTS AND COLLEGE TEACHING CERTIFICATE

Besides teaching, I also got involved in the REU group at WPI in summer 2016. I was one of the three professors that mentored students on four different projects. During this time, I guided students in understanding mathematical theories in fluid dynamics, explained different ideas in using numerical methods, and helped them with computer programming as part of their projects. This was a great experience for me as I want to work in the academic environment that includes both teaching and mentoring students. In fact, in the future, I would like to recruit and advise underrepresented students in my research areas. I also want to get involved in any outreach programs that look to encourage women and minority students to pursue their career in mathematics.

I received Certificate in College Teaching at Worcester State University in Spring 2016. The goal of the certificate is to prepare graduate students, adjunct, and full-time professors looking to work in the academic environment the essential methodologies in college teaching. It offers various course work ranging on different topics in the college classroom that teachers/professors have to face. I personally think that teaching is the most difficult profession. It requires substantial amounts of time and effort to prepare lectures, grade homework and tests and meet with students. But with some advanced preparation, I can manage to be more comfortable and confident in teaching and advising students.