STATEMENT OF TEACHING PHILOSOPHY

CEZAR LUPU

Teaching is the most important educative act that reflects the interaction between teacher and student.

I have had a true passion for teaching for quite some time. This passion stems from the enthusiasm of encountering new students, identifying their skill set, and attempting to develop their potential. Mathematics, before all, is a philosophy that teaches one to think and judge correctly. In order to make a student’s thinking process more ironclad, someone with experience must correctly shape how a student’s thoughts evolve. Initially, when working with a new pupil, I tune into how he/she thinks and attempt to access any weakness or gaps he/she possesses in their thinking, eliminating any frivolousness from their spectrum of knowledge. This itself becomes a process, and I enjoy shaping a malleable student into a more refined individual.

I started teaching gifted high school students for the International Mathematical Olympiad back in 2008 in my native country of Romania. The following year, I began teaching undergraduates at the Polytechnic University of Bucharest for almost three years. Here I taught classes such as: Calculus of Single variable, Multivariable and Vector Calculus, Differential Equations of Engineers, Linear Algebra for Engineers and the Problem Solving seminar. I must confess I learned a lot during my time as a teaching assistant in Romania. In 2012, I came to the University of Pittsburgh where I continued my adventure. Here, I experienced both sides of teaching: as a teaching assistant and lecturer. I taught a variety of classes such as: Calculus I, II, and III, Business Calculus, College Algebra, Differential Equations, Introduction to Theoretical Mathematics, Advanced Calculus I, and II and the Putnam Seminar.

In my lectures, I strive to accommodate every student in the classroom, not only the most genial of them. I do this by showing more than one approach to solving a problem so that everyone can relate. I like to focus more on teaching students how to derive formulas rather than memorizing them because I strongly believe it is essential for a student to learn by discovery. This is the best way one can grasp different types of abstract notions and formulas. Moreover, I feel the classroom environment should be engaging and vibrant with active participation of the students, encouraging them continuously to ask questions. This approach combined with my passion for the subject creates a good atmosphere so that learning is enjoyable and creativity can flow. Teaching must be convincing in order to be believable and instill a passion within the student. A student must feel the intensity of the information transmitted. It is for these reasons I believe teaching should be thought of as an act
rather than merely presenting information.

It is extremely important that the teacher is approachable and invests time in helping students. I always look for different methods to spark students’ interests on the topic I am teaching at a particular time. Verbal communication skills are essential for fruitful mathematical discussions and serve to strengthen the interaction between student and teacher. In addition, I also encourage students to present their work to me on the board to give them the opportunity to build their confidence, which I find to be an important factor in mathematics. These kind of mathematical discussions often lead to ideas and results that need to be transcribed into clear and coherent exposition. This happens during class, but more during office hours where I get the chance to listen, understand, and help students if they have flaws in their arguments on a certain problem. I even allow students to schedule office hours beyond the regular ones if they need more help. In my experience, I noticed that one-to-one meetings are most vital for students to understand the material and grasp essential notions and formulas. For example, in all my classes I organize review sessions before each exam and write different types of worksheets to make sure the students are prepared. I provide the link to the teaching section of my webpage: (https://lupucezar.wordpress.com/teaching/).

In conclusion, my primary goal as a teacher is to make students enjoy mathematics and to present it like it is: art, science, divinity. This can be done by introducing students to the enjoyable world of working with mathematical ideas and how they can provide real world applications. My secondary goal is to present mathematics to students as the science that will shape and strengthen their everyday arguments and stimulate their thinking. Last but not least, mathematics is exciting!

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