

Statement of teaching philosophy

Dr. Jose Luis Herrera

Teaching experience.

Early in my undergraduate studies in the School of Sciences at Universidad de Los Andes (ULA), Mérida – Venezuela, I realized that I did prefer some professors above others. The ones I was more interested about, or more excited about, were the ones that challenged me to learn more; those professors that encouraged me to look for more and get into the book, giving real life analogies of what we had learned in the classroom. At the same time, I discovered that not all students had my same preference, so I learn that we all have our own pace and rhythm and necessities when learning.

Soon after I finished the Physics core courses, I was able to have a 1-year position as a teaching assistant in a Laboratory of demonstrations of Physics. This position gave me the opportunity to work with small groups and to understand their process of learning. Some just needed an exact exposition of the content of the textbook, while some others needed more elaborated and comprehensive explanations. In this friendly environment, students from the early semesters of Physics were able to ask any question and as a result, I was also able to formulate different approaches to a variety of physical concepts. Later on, since I have always had an inclination to Mathematics, I earned a 2-years appointment as a teaching assistant (TA) in the Department of Mathematics, where I was able to work with students from such diverse backgrounds as Mathematics, Economy, Geography, Architecture and Humanities. Additional to the mathematical concepts, I had a hands-on approach to the application of Mathematics and Physics, teaching to my students the importance of mathematics as a essential tool to understand the world that surrounds us.

After this teaching experience as a student, I obtained a position as a Assistant Professor in the Calculus Department in the Engineering School at Universidad de Los Andes, Mérida – Venezuela (2008 - 2017), teaching single and multivariate calculus to engineering students. Being the top university of Venezuela, and given its public nature, it gave me the opportunity to work with students of different social and cultural backgrounds. Under my responsibility were two classes of 50 students each, without the assistance of TA's. It was challenging to teach to this variety of students and to be able to finish the syllabus of the class. In order to achieve the ultimate objective of the course (prepare the students with the appropriate tools to begin and continue their upcoming courses and career), I used to spend several office hours tutoring groups of students each semester. I was able to obtain the department's approval to make quizzes and preparatory tests to those students who required/asked for this help.

In addition to my classroom hours, I had the opportunity to tutoring three students from the computational systems department in their undergraduate thesis. At the moment I left ULA I was supervising master students from the Center of Fundamental Physics (CFF, from its name in spanish) at ULA. Furthermore, my teaching activities were complemented by seminar talks in diverse department of ULA for undergraduate and graduate students.

Teaching philosophy.

In the classroom I like to challenge students to get involved in the construction of concepts and demonstrations of the different applications of Mathematics and Physics as well as initiate them with their problem solving skills in Mathematics and Physics. I encourage their questions in and outside the classroom and their critical thinking. I consider myself a dedicated person who likes to teach and enjoys the interaction with students in their process of learning. I am willing to take the initiative to propose, learn and apply different techniques that could help students improve their performance. Furthermore, I am open to learn from more experienced colleagues. I consider that working at ULA, gave me the opportunity to understand how challenging it is to teach and prepared me to use that experience to teach in other environments.