

Teaching Statement

Laura De Carli

In my professional life I have taught a wide variety of Math. classes to the most diverse groups of students, at different levels, in different countries, and involving different duties to classes of different sizes.

When I was a graduate student at UCLA I was teaching assistant of Calculus 1 and 2 for mainly Life Science majors. As a lecturer in the University of Naples“Federico II” (Italy) I taught Calculus for Geology Majors. In 1999 I also taught a Graduate course on Fourier Analysis. At the University of Missouri-Columbia, I was in charge of Calculus and Discrete Mathematics classes for mainly business students. At Florida International University I taught Calculus, Differential equations, History of Mathematics and several graduate classes. In addition to teaching, I have been a mentor to many students both in Italy or in the US.

Florida International University (FIU) has a long standing tradition of educating students from under represented minorities. Since joining FIU, teaching and mentoring some of these students has been an especially enriching experience. I feel that my presence in this department adds to the diversity of academic culture and enhances the tradition of fostering these students.

I am a truly enthusiastic, hard working and motivated teacher with high academic standards, who demands and invariably obtains above than average performances from her students.

I often make my students do something interesting and out of the norm as a way to earn their grades. In my History of Mathematics classes I encourage students to prepare 30' lectures on topics of special interest. These topics range from the history of zero to the Mayan astronomy or the Chinese proof of Pythagoras's theorem. I also show educational videos in class - for example, the Nova video on Archimedes' lost manuscripts, or Newton's approach to alchemy - and invite colleagues from the History Department for special presentations. All of this has made my History of Mathematics lectures famous at FIU. My students' significant others, students from other Departments, colleagues and friends often attend my lectures and ask questions. I absolutely love teaching History of Mathematics, and my students love it too. A few years ago a group of FIU students wrote an e-mail to the Dean of the College of Arts and Science to praise me and my teaching skills. By the way, it was the Dean, not the students, who brought this e-mail to my attention while I was in his office for my tenure interview.

Before I started teaching at FIU, History of Mathematics was regarded as a boring service course for Math. education students that nobody wanted to teach. Now the students' demand for this class is so high that I was asked to write a proposal for a new History class, History of Mathematics II, also called "Topics in the history of Modern Mathematics" (see the attached Syllabus) which was readily accepted by both the Math. Education and the Math. Curriculum committee.

History of Mathematics is one of my most successful accomplishments as a teacher, but I could also describe in details how I have contributed to make any other class more fun and interesting for students. It would be too long to do this, so I will just stick to certain general principles that I consider part of my teaching philosophy and of my personal recipe for a fulfilling and rewarding teaching experience.

- I am always well prepared for class and teach with enthusiasm. Moreover, I am a good entertainer. I tell jokes and anecdotes, make funny faces and noises; I have a deep bag of tricks, and do whatever it takes to get my class's attention and keep them involved in the material.

One of my students told me once that it is impossible to get bored in my class because I am "all over the places" when I teach. I love when a student comes to tell me she is going to miss class and looks truly sad.

- I always encourage students' participation in the class. Student involvement is key to providing stimulating classes and pitching the level of the lecture correctly. During the lecture I leave some examples to students to think about for a couple of minutes. This will help them to have a better grasp of the material. In order to help students cope with the fast-paced format of the course, I often use the course web page to post new material. I try to make all my lectures interactive through the use of prepared Power Point slides, step-by-step explanations of example on the board, and the constant encouragement of student participation.
- I set high standards and clear rules. During my first week of class I clearly explain my students what I expect from them in terms of homework, tests, and general performance. I demand regular attendance and punctuality and good behavior in class, and I do not hesitate to enforce these rules when is necessary. I believe that students appreciate a teacher who sets up clear rules and sticks to them, but I make exceptions when necessary. My students learn quickly that weak excuses do not work well with me, but if they have a real, well-documented emergency, then they can truly count on my help and understanding.
- I give my students attention and respect. Students in a large state University may easily feel anonymous and invisible (I am quoting one of my students). I try to show my students that I care for them. I make a point to memorize their names. I try to create a friendly and relaxed atmosphere during my office hours. I am always a patient and sympathetic listener when my students talk to me about personal problems. Many of my students speak Spanish as a first language and appreciate the fact that I can chat with them in Spanish. I try to get in touch with students who miss a few classes in a row either with e-mails or hand written notes, and I offer them extra help to catch up.
- Homework are extremely important for learning the material. I usually give my Calculus students several challenging homework per semester, which are meant as a preparation for the tests and the final and contribute toward their final grade. I strongly encourage

my students to work together on the homework problems and help one another. When many students come to my office hours at the same time, I sit them by a large table outside my office and I take turns to answer their questions. In the meantime, they keep working on problems and helping one another.

I would like to end this statement with one of my Calculus student's comment, which summarizes well my teaching philosophy and goals.

Ms. De Carli is one of the best instructors I have ever had. She strives a perfect balance of challenging us so that we have a thorough understanding of the material, but makes herself very available to give us any help we may need with the work. Lectures are very clear and she explains the material well. Keeps to the syllabus to make sure we learn what we are supposed to