

Maria van der Walt | Teaching Statement

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I firmly believe that being a mathematics teacher is about more than simply teaching students calculus and algebra. It is about teaching them how to reason logically and approach problems systematically and methodically, not only when tackling mathematics exercises, but when encountering any problems in real-life situations. It is a privilege for me to be able to contribute to a student's development in this way.

With this in mind, my objectives as a mathematics educator are:

- to teach logical reasoning and foster critical thinking;
- to model expert problem solving;
- to guide students to understanding their own thought processes;
- to prepare students to be knowledgeable adults;
- to inspire students to enjoy mathematics.

These goals have certain implications for the way in which I approach interactions (classroom and individual) with students:

- I prepare my lectures thoroughly so that I can explain course material as clearly and systematically as possible.
- When solving problems in class meetings, I am conscious of modeling my own thought processes in problem solving, and not merely showing my students the correct solutions.
- During the course of a semester, I emphasize to students how different mathematical concepts they have learnt hold together and build on one another. I want them to become well-rounded mathematicians.
- When applicable, I show students how mathematics is applied in real-life examples.
- I believe in assigning a few daily homework problems (that are not necessarily graded) that should help students practice and capture the concepts and skills they have learned in class. Apart from these problems, I also like to assign weekly or bi-weekly graded homework assignments that are a bit more challenging and problem-solving-oriented than the daily routine exercises, and are designed to give students more insight into practical or theoretical aspects of the course material.
- When students visit me in office hours, I lead them and teach them to arrive at answers by themselves through logical reasoning, and not simply give them the correct approach.
- During office hours, I want to be approachable and open to students and put them at ease (from my own experience, I know it can be quite daunting to talk to your mathematics instructors when you're struggling with a concept!).

I am passionate about mathematics and teaching mathematics, and it is my hope that I can inspire my students to learn and love it too.