

Jason S. Bode

28H Jane Lacey Drive
Endicott, NY 13760
(607) 754-2915
jsb55@cornell.edu

Teaching Statement

As I develop into a mathematician, my love of teaching mathematics continues to grow. After my first exposure to teaching, I realized that teaching well requires concentration, enthusiasm and energy, both before and during a class. Preparation and practice are essential. A major focus of my life since then has been developing my teaching skills and studying the multifaceted strategies to foster a love of mathematics in my students.

One of the first challenges of teaching I encountered is that individuals understand and approach mathematics differently. It is thus essential for effective teachers to recognize and identify a student's confusion. Because knowing my students enables me to discern when they have questions, I have each student meet with me individually at the start of the semester. These meetings increase the student's comfort in class and present an opportunity for me to encourage questions, both in and out of the classroom setting.

Beyond watchfulness for struggling students, I often explain concepts in multiple ways to assist the students in their learning. An example is going beyond simply stating the Mean Value Theorem. I present a geometric interpretation and reveal that with many experiential applications, the result is intuitive. By using this approach I appeal to different styles of learning mathematics and I guide students in forming a more accurate impression of the concept, and thus a deeper understanding. As I assisted in developing a course teaching students to write proofs and through other grading assignments, I discovered a variety of ways to encourage students to present ideas in a clear and logical manner.

A sense of cohesion between the concepts in a course is important to students. Through my education minor, I have been able to explore the process of learning. Utilizing this understanding, I lead my students to discover connections between elements of the course. In doing so, my students better comprehend the individual topics and additionally glimpse the important ideas threaded throughout mathematics. I can demonstrate the beauty of mathematics, and allow students to understand the importance of a concept in relation to the course, to mathematics, and to life.

The usefulness of the major concepts in a course is amplified when students use a broader knowledge base as a source of applications. I counsel my calculus students to be familiar with algebraic formulae, teaching them to recognize when a formula may be helpful. Students are given opportunities on homework assignments and in class to practice their computational skills, allowing familiarity with these operations so their greatest effort may be concentrated on learning bigger concepts.

When students are introduced to a new concept, they need to assimilate it into their existing mathematical framework and be allowed to discover where connections and conflicts arise. To encourage this, I allow students to work in small groups, sharing their approaches and struggles. This requires the students to organize their thoughts, as they must explain their model to the group. Hearing the perspectives of other students further strengthens their understanding. Through carefully considered questions, I lead the students to expand their ideas or to discover and resolve inconsistencies.

Many things have changed since I first taught a class in high school. My education minor has opened my eyes to a new world of both creative ideas and constant challenges that are part of every teacher's life. Throughout my years at Cornell, I attended education seminars to explore difficult issues in teaching and to discuss classroom experiences with other instructors. I am committed to continuing education, especially with regards to technology in the classroom. At Cornell we use an in-class anonymous polling system to encourage discussion, challenge preconceptions and expand students' knowledge. Online communication is fostered through Blackboard and discussion boards, while MapleTA provides pre-class quizzes to encourage students to read before class.

I am but a few steps along my journey as a mathematics teacher. An abundance of lessons lie ahead and I look forward to every one. My desire is to bring young minds into this world of mathematics, revealing its excitement, that they may joyfully discover its mysteries along side of me. I treasure the opportunities to encourage students to achieve beyond what they thought possible.

Teaching is my calling, mathematics is my passion... the students are my reason.