

**Presentation of the Distinguished Faculty Award
to Professor Ann Oaks, June 3, 2016**

Remarks by Elaine Bruno WS'91

Throughout my four years at William Smith, Ann Oaks was so much more than just a mathematics professor. She was for me, as she was for so many of her students, an advisor, mentor, role-model, champion, and friend. Ann taught the first class of my college career – Calculus I. Our class met in the basement of Demarest Hall. The room was less than inspirational with no windows and an institutional dropped tile ceiling. Ann walked into that dreary room, began teaching and the atmosphere became instantly electrified. Ann teaches with a passion and enthusiasm fueled by her love of the beauty of mathematics and her deep understanding of how students learn. She is an incredibly dynamic lecturer. Watching her teach is like watching a well-choreographed dance. She glides effortlessly up and down the length of the blackboard with confidence and ease, pausing occasionally with her signature “humph”, hands in pockets, rocking back and forth on her heels to emphasize a

point. As a young woman thinking she *might* want to pursue a career in math, I was hooked. Ann had me mesmerized.

Ann was transformational for me in so many ways – in how I thought about math, how I approached problems, how I saw myself as a student and a woman, and how I would (someday) teach.

Ann humanized math for us. She helped us see that rote memorization of a series of steps was not learning or understanding. She taught us to approach mathematics by probing and asking “how”, “what if”, “why”? She told us that she never memorized algorithms to solve problems and she modeled for us her approach – the internal conversation: “what am I given?” “what do I need to show?” “how can I get there?” “what tools do I have to help me get there?” She supported her method with an analogy to learning to use her tractor. No matter how many times someone *told* her the steps to follow, she couldn’t get the tractor to operate. It wasn’t until she learned what each part did and how the parts worked together that the sequence of steps was logical and she could perform them successfully. She taught us that studying math is truly a human endeavor, that we needed to think, to question, to see

relationships and connections... to see that math is elegant and beautiful. This was a revolutionary way of thinking about math for most of us who had been raised on step-by-step algorithms for problem solving.

In retrospect, it seems fitting that Ann would be teaching in the same building that houses a library dedicated to another revolutionary woman, Elizabeth Blackwell, because Ann is truly is a revolutionary woman. Like Dr. Blackwell, Ann opened doors for other woman and she put service to her students, her colleagues and her school before herself. She blazed a non-traditional path in her own education, taking time to first start and raise her family then enrolling at William Smith as an adult Life-Long Learner in the early 70s. As a mother, a student, and a female in a male dominated discipline, Ann had her own unique perspective. She became passionate about the relationship between teaching and learning and gender issues in mathematics. In the fall of 1988, Ann coordinated a symposium on the issues of gender in mathematics and brought three internationally known authorities on the subject to the colleges. These were women like Ann, pioneers in their field, wives mothers, scholars – inspirational role models for all women.

Having the opportunity to hear these women speak and meet them personally had a tremendous impact on me. I began thinking more deeply about gender issues in general and more specifically about how they affect the teaching and learning of mathematics. This experience helped to shape and inform my own philosophies and practices as a high school math teacher empowering the next generation of women at an all-female school.

Ann acted as the liaison between the math and education department and was my mentor for the teaching certification program. She taught me that teaching is very similar to parenting. That it's important to be a *teacher first*. That the best classrooms are run with discipline, respect, a clear set of simple rules and fair and consistent implementation of those rules. She taught me that good teachers set high expectations for their students and then do all they can to help their students meet these expectations. Ann practiced this philosophy every day in her classroom and outside of class. She was always available for extra help, willing to meet with students at any time, holding endless office hours. Ann's commitment to her students' success was especially evident to me during our Calc. II Final Exam.

The exam was one of the last scheduled for Winter Term, in a dreaded 7-10 pm time slot. At 10:00, not one person in our class had handed in their exam. Ann looked at us and simply said “do you need more time? Okay, take what you need to finish.” She let us continue working until we were finished. I handed in my exam just before 11 o’clock. Knowing that I had been given the opportunity to show how much I knew, rather than be bound by some arbitrary time limit, motivated me to work even harder and I did not want to disappoint Ann.

All too often mathematicians hear phrases like “I hate math”, “I can’t do math”, “I was never good at math.” Ann was dedicated to changing these attitudes and sharing her love of mathematics by developing classes for non-math majors. Her Discovery in Mathematics course approached and explored mathematics from a place of wonder and curiosity and taught some of the most simple concepts in the most creative and innovative ways. It was a privilege to be her T.A. for this course and see so many concepts from a new perspective. Even students who “didn’t like math” developed an appreciation for its beauty.

Ann showed me the beauty inherent in mathematics and taught me that teaching is truly an art and that the intersection of beauty and art is the teaching of mathematics. Ann personifies the idea that teaching isn't just about knowing your subject and having all the answers, it's about knowing your students and the question they will have.

Ann has influenced the lives of so many students. She inspired me and generations of mathematicians, math educators, and women. She is a glowing example of what makes HWS a special place to live and learn.

It is a great privilege and honor to present the Distinguished Faculty Award to Ann Oaks.