

In 1991 the Mathematical Association of America instituted Awards for Distinguished College or University Teaching of Mathematics in order to honor college or university teachers who have been widely recognized as extraordinarily successful, and whose teaching effectiveness has been shown to have had influence beyond their own institutions.

Citation

Dr. Diana Thomas

The New Jersey Section of the Mathematical Association of America is pleased to present its 2011 sectional award for Distinguished College or University Teaching of Mathematics to Dr. Diana Thomas.



Dr. Diana Thomas received her B.A. in mathematics from the University of Montana in 1991 and her Ph.D. from Georgia Tech in 1996, under the supervision of Dr. Shui-Nee Chow. She has been a faculty member at Montclair State University since 2000. This Distinguished Teaching Award recognizes Dr. Thomas' dedication to teaching, her untiring devotion and concern for students, her work with students outside the classroom, her commitment to

undergraduate research, and her classroom experimentation based on learning and human motivational literature. In 2009, Dr. Thomas was the recipient of the College of Science and Mathematics Excellence in Teaching Award at Montclair State University.

Dr. Thomas is outstanding as a teacher in many ways: she has taught a very wide range of courses from general education courses to graduate courses, she incorporates the latest innovations in technology, she involves students in research projects, and she mentors and learns from other faculty. But two aspects particularly stand out: her concern for students at all levels and her ability to pass on her passion for teaching and research. Her concern for students leads her to reach out to students from her general education courses to advanced undergraduates and graduate students, encouraging them, offering support, and involving them in research projects. Throughout her teaching career, Dr. Thomas made great efforts to experiment with novel teaching practices. She has always believed that teaching matters, and that all students can learn. Dr. Thomas has set a model as an active and interactive teacher. She knows how to engage and challenge students and how to provoke impassioned responses. Examples include her use of major-related projects in core mathematics courses to encourage both collaboration and active engagement among students and the use of lab notebooks for homework as a means to develop reflective and cumulative learning. Specifically, when teaching calculus to biology majors, Dr. Thomas uses examples provided by biology and similarly for chemistry, computer science, and mathematics education. She spent many hours to reviewing students' notebooks and modifies her teaching based on students' understanding.

Dr. Thomas has been at the forefront of experimenting with the use of technology to communicate with her students, inside or outside classrooms. For example, she uses clickers in her classes facilitate interaction and gauge student understanding. Based on these interactions, she modifies her instruction to tailor to student needs. She uses a Dell PC tablet that allows her to work with students remotely. Such technology has allowed her to help her students outside of traditional office hours in a personal and explicit way.

Dr. Thomas has been active in undergraduate research programs at all levels. She has directed more than ten undergraduate research projects at Montclair State University (MSU). Two of her students won a “Best Poster Award” in distinct years at the MAA national meeting student poster competition. Her supervision of student research projects has led many who would not have considered graduate school to continue their studies. She set up Montclair’s peer tutoring center. She initiated MSU’s ROCS program (Research Opportunities for Commuter Students) through which the math department offered the first-ever research classes for math majors. She organized the first four MSU Annual Student Research Symposiums. At the national level, she organized the Undergraduate Student Poster Session at the Joint AMS/MAA Mathematics Meetings from 2006 to 2010, during which time the size of the session grew from about 125 to 250 posters. She worked diligently to solicit student submissions, faculty judges, communicate with both groups of people, and structure a seamless event.

Dr. Aihua Li of the Department of Mathematical Science, Montclair State University, nominated Dr. Diana Thomas for this Distinguished Teaching Award.

Response from Professor Thomas

This award is being shared by all the individuals who have played a significant role in the development of my teaching. We always remember that first teacher who brought the excitement and joy of mathematics to our souls. For me, this was Mr. Fen Wilkinson, a high school teaching star from my tiny sleepy town of Glendive, MT. Mr. Wilkinson graced our halls with the first Calculus course offered at the high school level. He slowly walked us through calculations and theory and his enthusiasm for the subject was infectious. It was during this class that I decided I want to be just like Mr. Wilk and I set off to the University of Montana as a mathematics education major. During my Montana Grizzly days, I was guided by new heroes: Dr. William Derrick, Dr. Gloria Hewitt, and Dr. George McRae. They introduced me to the magical subjects

that we love: abstract algebra, real analysis, and set theory. If you don’t agree with me about set theory, then you should sign up for an independent study with Dr. McRae. During my senior year at the University of Montana, I wrote Dr. W.F. Ames at the Georgia Institute of Technology and he sent me an application for graduate school. I happened to go to one of the first REU’s directed by Dr. James Curry who showed us the NOVA documentary with Dr. Michael Barnsley also from the Georgia Institute of Technology. These coincidental events inspired my decision to apply to Georgia Tech where I taught for the first time. I began as a teaching assistant for Dr. John Neff whose unique sense of humor and style greatly influenced my teaching. Graduate school is such a special time for all of us. We are given the opportunity to learn new mathematics, collaborate with outstanding researchers, and be exposed to teaching styles from around the world through our international peers. It was here that I learned the mechanics of mathematics teaching. I have to mention some names whose advice I still draw upon today: Dr. Fred Andrew, Dr. Jack Hale, Dr. Michael Loss, Dr. Bob Kertz, Dr. William F. Ames, Dr. Yang Wang, and my advisor Dr. Shui-Nee Chow; my fellow graduate students, Dr. Hugo Leiva (it’s okay to be slow), Dr. Waldtraud Rufeger (she always had a new integral on the board to mull over) , Dr. Franklin Mendivil (I was thinking about an interesting problem to put on the test), and Dr. Almut Bouchard. Improving teaching is a continuous job with no end and colleagues at West Point (Drs. Chris Arney, Brian Winkel, and Lida Barret) and New Jersey City University (Drs. Freda Robbins, Deborah Bennett, Alan DeFina) still generously answer questions for me and discuss teaching. My colleagues at Montclair State University continue to work with me to bring the best possible instruction for our students: Drs. Eileen Fernandez, Ken Wolff, Helen Roberts, Michael Jones (now at AMS mathematical reviews), Lora Billings, David Trubatch, Jonathan Cutler, John Stevens, and Aihua Li. In all of this, I cannot forget my students starting with the first set of students at Georgia Tech up to my current Number Theory class. They are the individuals who sit in my classes day in day out and willingly share their observations and interactions with me to provide me with quality feedback. They are the ones that teach me how to teach them.

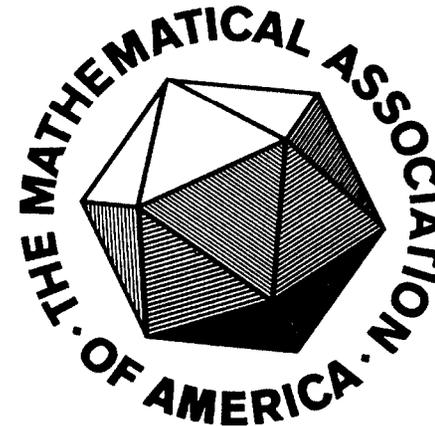
**RECIPIENTS OF MAA-NJ DISTINGUISHED
TEACHING AWARD**

Sr. M. Stephanie Sloyan, Georgian Court College	1992
Eileen Polani, St. Peter's College	1993
Richard Bronson, Fairleigh Dickinson University	1994
Siegfried Haenisch, The College of New Jersey	1995
Andrew Demetropoulos, Montclair State University	1996
Roger Pinkham, Stevens Institute of Technology	1997
Virginia Lee, Brookdale Community College	1998
Amy Cohen, Rutgers University-New Brunswick	1999
Janet H. Caldwell, Rowan University	2000
Evan Maletsky, Montclair State University	2002
Stephen J. Greenfield, Rutgers University-New Brunswick	2003
Arthur Schwartz, Mercer County Community College	2004
Bonnie Gold, Monmouth University	2006
Bruce G. Bukiet, New Jersey Institute of Technology	2008
Thomas Osler, Rowan University	2009
Robert L. Wilson, Rutgers University	2010
Brian P. Hopkins, St. Peter's College	2011

MEMBERS OF THE SELECTION COMMITTEE

Bruce G. Bukiet, New Jersey Institute of Technology
Bonnie Gold, Monmouth University
Tom Osler, Rowan University
Robert Wilson, Rutgers University
Kenneth Wolff, Montclair State University

**MATHEMATICAL ASSOCIATION OF AMERICA
NEW JERSEY SECTION**



**Award for Distinguished College or
University Teaching of Mathematics**

Spring Meeting

**Saturday, March 31, 2012
Raritan Valley Community College
Branchburg, New Jersey**