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. Cynthia Curtis

The New Jersey Section of the Mathematical Association of America is pleased to present its 2017 sectional award for Distinguished College or University Teaching of Mathematics to Dr. Cynthia Curtis of The College of New Jersey

(TCNJ).

Dr. Curtis has demonstrated that she is an excellent teacher both in the classroom and in her work with undergraduate students on research projects. She has been twice honored by TCNJ students as a Teacher of the Year (2001, 2006). Part of Dr. Curtis' success is due to the relaxed atmosphere she creates in the classroom. Students feel free to speak up and participate and Dr. Curtis has designed all her classes to maximize student involvement. Her students comment that she makes an effort to adapt her teaching to accommodate students' differing learning styles. Her colleagues comment that Dr. Curtis believes that our students are capable of achieving high levels of mastery and dedicates herself to seeing that they manifest these capabilities. Her students reinforce this idea by saying that "she saw potential in my mathematical abilities before I saw the potential myself."

Over a decade ago, Dr. Curtis created an upper-level math course focused on knot geometry. Usually taught every two years, this course has been extremely successful in engaging students. It is taught in a unique way emphasizing students mastering the material, and students are encouraged to keep revising their homework problems until they demonstrate high proficiency with the material. This feedback-intensive experience has been noted by former students as having been instrumental in improving their proof-writing skills and in greatly enhancing their abstract mathematical thinking. In addition, in this class Dr. Curtis allows students to teach a lecture during the semester, offering students invaluable experience in mastering material well enough to present to peers, under Dr. Curtis's careful guidance.

Outside the classroom, Dr. Curtis has also distinguished herself. One of her lasting contributions to the Mathematics and Statistics department at TCNJ was her early championing of undergraduate research in mathematics. She has served as a leader in cultivating a culture in the department where faculty can imagine ways in which they can bring students into their research programs. Over the past 14 years, she has worked with 47 students in independent studies, undergraduate research, honors projects, and capstone projects. Twenty-two of these students worked with Dr. Curtis on undergraduate research projects, and thirteen of these students (thus far) pursued graduate study in mathematics. The research results of four students were published in two papers in the Journal of Knot Theory and its Ramifications, and a third paper is under review.

Dr. Curtis is also a caring advisor and mentor for her students. Her students speak of the guidance Dr. Curtis provided them, and she is an advocate for her students and helps them to fully develop their potential. As an advisor of approximately 17 students a year, Dr. Curtis is very attentive to detail and frequently checks with her colleagues to ensure that students are receiving the best advice. Formally, she has served as one of the department's advisors for REUs and Graduate Schools for the past two years and has also served as the department's liaison for the Celebration of Student Achievement in the past.

Dr. Curtis has also served the larger mathematical community. For the ten years from 2007-2016, she served as a member of the organizing committee for the Program for Women in Mathematics at the Institute for Advanced Study in Princeton, NJ. This annual program is an eleven day mentoring program for undergraduate and graduate women in mathematics. It has had a significant impact in our profession, with participants receiving 26% of the female NSF postdoctoral awards in the 1995-2015 time period. Dr. Curtis was also one of four co-organizers who successfully obtained an Association for Women in Mathematics grant to fund a Sonya Kovalevsky Day. The grant funded a one-day conference at TCNJ in 2011 and 2012 for area high school girls and their teachers to encourage the study of mathematics.

Dr. Curtis has made an outstanding contribution to the teaching of Mathematics at The College of New Jersey and has had a profound impact on her students.

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Professor Thomas R. Hagedorn of the Department of Mathematics and Statistics, The College of New Jersey, nominated Dr. Cynthia Curtis for this Distinguished Teaching Award.

#### **Response from Professor Curtis**

I am deeply honored to receive this award. While I love the scholarly aspects of my career, it is in teaching and mentoring that I find a sense of calling. I am grateful for the opportunity to work at an institution which values and nurtures outstanding teaching; TCNJ has enabled me to flourish as an educator. I am particularly honored to receive this award from the MAA, an organization synonymous with excellence in undergraduate mathematics education. I thank my departmental colleagues for making teaching a daily conversation piece and for creating an environment in which I am always challenged to grow. I learn constantly from all of you, particularly those with whom I have taught. Most of all I thank my students for their curiosity and their willingness to be challenged. Working with you brings me joy every day.

I am indebted to my mother for sharing her love of mathematics with me from an early age; to my parents for demonstrating daily the meaning to be found in service to others; to my high school teacher, Richard Beeler, for making mathematics a joyful dance and for holding up his dream of having a student author a lemma; to the faculty at Union College, who modeled outstanding undergraduate teaching and mentoring; and to faculty mentors at Yale and colleagues at Princeton who supported my growth as a scholar, which has been essential to the effectiveness of my teaching.

Finally, I thank my husband, Ken, and my (now adult) children, Alli and Colin, for supporting me when work called me away from family, for buying me knots and Klein bottle earrings, for understanding and respecting the value I place on my work even when I complain about grading, and for taking pride in my successes.

# 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 |
| Siegfred 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, Saint Peter's College                 | 2011 |
| Diana M. Thomas, Montclair State University             | 2012 |
| Sarita Nemani, Georgian Court University                | 2013 |
| Karen Clark, The College of New Jersey                  | 2014 |
| Denis Blackmore, New Jersey Institute of Technology     | 2015 |
| Jana Gevertz, The College of New Jersey                 | 2016 |

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## MATHEMATICAL ASSOCIATION OF AMERICA NEW JERSEY SECTION



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

**Spring Meeting** 

Sunday, March 26, 2017 The College of New Jersey Ewing, New Jersey