New Jersey Section's Carol Crawford Award for Excellence in Undergraduate Teaching

Dr. Ken McMurdy

The New Jersey Section of the Mathematical Association of America (MAA) is pleased to present its 2025 Carol Crawford Award for Excellence in Undergraduate Teaching to Dr. Ken McMurdy of Ramapo College of New Jersey.

Dr. Ken McMurdy has been a faculty member at Ramapo College of New Jersey since 2007, teaching a broad range of courses, including foundational mathematics, upper-level electives, and inter-disciplinary subjects such as Cryptography and Stochastic Calculus for Finance. His nominators speak about his unparalleled ability to engage students of all levels with clarity and enthusiasm.

Dr. McMurdy is acknowledged by his colleagues and students for his dedication to teaching, mentorship, and student engagement. His commitment to fostering student learning, both inside and outside the classroom, has earned him widespread admiration from students and colleagues alike. The nomination letters from students and colleagues observe that Dr. McMurdy clearly communicates challenging mathematical concepts while being encouraging and patient in his interactions with students.

One colleague shared their admiration of Dr. McMurdy's intentional and encouraging student engagement philosophy stating that:

> *"I am amazed at how he consistently is able to immediately communicate the clearest explanations, tailored to meet the needs of the particular student he is working with."*

A former student also confirmed Dr. McMurdy's dedication to student success by sharing her insights:

> *"In Fall 2019, Professor McMurdy was my linear algebra instructor, and prior to even entering his classroom his reputation as an intelligent, kind, enthusiastic and compassionate instructor preceded him…. his priority was always the students"*

Dr. McMurdy's interest in addressing the needs of students from diverse backgrounds were evident in a student nomination letter:

> *"…he would always try to incorporate student interests, as the class consisted not only of math majors, but computer science, and physics majors as well. Overall, Professor McMurdy is not an exceptional mathematician, but an incredible teacher."*

It was evident in the letters from both colleagues and students that Dr. McMurdy cares deeply about students' well-being in addition to their mastery of math learning. A student stated that:

> *"While he always wanted to make sure that I had a strong grasp on the mathematics we were covering, he was also concerned about how I was doing not only as a student, but as a person. Professor McMurdy is one of the most genuine and thoughtful professors I have ever had."*

These genuine efforts in student learning and success are also acknowledged by Dr. McMurdy's colleagues in their endorsement letter:

> *"He also is very encouraging to his students (we all know how easily discouraged students get in mathematics courses). Most importantly, he gets to know his students as individuals, asking after their interests and goals."*

In addition to his purposeful empathetic teaching approach, Dr. McMurdy is also recognized for his mentoring that extends beyond the classroom. Students who wish to have an authentic mathematics research experience enthusiastically seek out Dr. McMurdy. A colleague of Dr. Ken McMurdy shared that:

> *"Ken has taught many students in our Research Honors Program over the years. He is regularly sought out by our brightest students, looking to have an authentic mathematics research experience. His work in Number Theory provides many opportunities for student projects that help propel them into graduate school."*

Due to his student-centered teaching approach, Dr. McMurdy is regularly invited by students to be the keynote speaker for Pi Mu Epsilon, the Mathematics Honor Society, a testament to the lasting impact he has on his students' academic journeys.

In addition to his mathematical expertise, Dr. McMurdy actively contributes to student life at Ramapo College. He serves as a faculty advisor to an a cappella student organization while playing in a jazz ensemble on campus, demonstrating his commitment to fostering a well-rounded college experience for his students. These efforts earn him admiration from students majoring in math as well as in other diverse disciplines.

Dr. McMurdy is known for going above and beyond to support students outside of the classroom. His involvement as a longtime organizer of the Garden State Undergraduate Mathematics Competition (GSUMC) further demonstrates his commitment to expanding students' mathematical experiences beyond coursework.

Dr. McMurdy's exceptional teaching, dedication to student success, and influential mentorship make him an ideal recipient of the MAA-NJ Section Carol Crawford Award for Excellence in Undergraduate Teaching. His passion for mathematics education and consistent support for students truly set him apart as a distinguished educator.

Overall, the MAA-NJ award committee finds that Dr. McMurdy has demonstrated Excellence in Undergraduate Teaching, because "Ramapo is fortunate to have the greatest mathematics teacher in the world – Professor Ken McMurdy."

Dr. Lawrence D'Antonio, Professor of Mathematics at Ramapo College of New Jersey, nominated Dr. McMurdy for this Distinguished Teaching Award.

Response from Dr. McMurdy

I am very honored to be named this year's recipient of the MAA-NJ Section Carol Crawford Award for Excellence in Undergraduate Teaching. This award is particularly meaningful because it represents not only a vote of confidence from past students but also from respected colleagues who know me well and have observed my teaching over many years. At Ramapo College, I am extremely fortunate to be part of a tight-knit group of dedicated mathematician teachers, who are always supportive and always happy to "talk shop" regarding our most important function.

I don't believe that there is one secret to quality teaching in mathematics, although there are many concrete strategies that can improve effectiveness. I'm sure that all of my students would say that my greatest strength is simply the unbridled enthusiasm and passion for the subject that I bring to the classroom - I openly celebrate and marvel at the countless beautiful ideas as they arise, projecting my belief that the value of studying mathematics is not simply to learn a practice but also to understand and appreciate those ideas, and as a result to change the way that one thinks.

Over the past several years, I've come to believe that one of the most helpful things that I can do as a math teacher is to craft and effectively communicate narratives and themes that tie ideas together and show how they relate to each other. Specific details (and formulas) will be learned and reinforced through practice if the overall narrative is well understood. Conversely, without an understanding of the overall story, those details are often incorrectly processed by the student as a disconnected collection of facts which can then be misunderstood, misapplied and quickly forgotten.

If I had to identify one strategy or piece of advice, however, it would surely be to enjoy getting to know one's students as people. This enables the teacher to provide more meaningful support and encouragement, which in and of itself can have a huge positive impact. Moreover, it facilitates essential *two-way* communication that enables the instructor to really understand how students are thinking about a particular issue and respond accordingly. As teachers, we need to meet students where they are if we are to take them as far as they can go. I can't imagine a more rewarding and pleasurable experience than my experience teaching mathematics at Ramapo College over the last nearly 20 years. Again, I am deeply grateful for this recognition of my efforts, as well as the steadfast support of my many treasured colleagues at Ramapo and beyond.