



ASSOCIATION OF ATLANTIC UNIVERSITIES  
ASSOCIATION DES UNIVERSITÉS DE L'ATLANTIQUE

*Award for Excellence in Teaching*  
2017  
*Distinguished Teaching Award*

**DR. DANNY DYER**

Dr. Danny Dyer is an associate professor in the Department of Mathematics and Statistics, Faculty of Science, at Memorial University. His dedication to providing students with the best opportunity for success is evidenced by his course designs, learning resources, teaching and assessment methods, and the professional development opportunities he organizes for graduate and undergraduate students. As the first Chair in Teaching and Learning for the Faculty of Science, as a member of Memorial's First Year Success Program team, and as a contributor to math competitions, science festivals, and SHAD Memorial, Dr. Dyer has had a positive effect on teaching and learning in the wider University community.

Dr. Dyer's experience with the First Year Success Program and his participation in Project Engage in Teaching prompted him to make major changes to the way he teaches math, particularly in the first-year large-enrolment calculus course he teaches each fall semester. He redesigned the course from the typical math lecture course to one that uses a flipped classroom approach. The redesign required the development of new learning resources, including "fill in the blank" notes, worksheets and videos. In keeping with his philosophy that one learns math by doing it, students now spend class time working together to solve math problems. In year-end course evaluations, students commented that his teaching is "unique and totally successful"; it made a "world of difference in learning"; and they "never want to learn math in any other way." As the course coordinator, Dr. Dyer shares his resources and mentors junior colleagues who teach the multiple sections of this course. Dr. Dyer has also recruited a team of instructors from the three campuses of Memorial to redesign the online versions of this and the first-year pre-calculus course. One team member praised his "exceptional insight into how students learn mathematics" and his "innovative, practical ideas for how to maximize that learning."

Dr. Dyer is noted for student assessment methods that are not typical of methods commonly used in mathematics. For example, students complete short projects that focus, not on the mechanics of completing a math problem, but on the "big ideas" surrounding the nature of calculus and its place in society. With teams of colleagues, Dr. Dyer has received two teaching development grants: one to develop assignment software for first-year courses and another to design a graduate program in mathematics and statistics teaching. He also initiated an Undergraduate Research Forum to help students develop the communication skills necessary for academic presentations and publications.

Dr. Dyer's passion for mathematics, his ability to motivate and engage students, and his collegial approach to teaching development campus-wide were recognized by the Memorial University community in 2016 when he received the President's Award for Distinguished Teaching. This extraordinary educator now adds the 2017 Association of Atlantic Universities' Distinguished Teaching Award to his well-deserved honours.