Teaching and learning of university mathematics: how have things evolved (or not)?
Enseignement et apprentissage des mathématiques universitaires : comment les choses ont-elles évolué (ou non) ?
(Org: **Andrijana Burazin** (University of Toronto, Mississauga))

HOPE ALDERSON, University of New Brunswick
Balancing Technology and First Principles in Engineering Mathematics

While the mathematical content of many university courses has changed little over time, the context in which students learn mathematics has changed considerably. Engineering students today have immediate access to computational software, online resources, and generative AI tools, prompting renewed questions not only about how to solve problems, but also why certain mathematical skills still matter.

Drawing on experiences teaching mathematics courses for engineering students, coordinating mathematics support services, and engaging with industry, this presentation reflects on how students' attitudes toward mathematics, problem solving, and computation may be evolving alongside changing accreditation requirements and professional expectations within engineering education. While technology can increasingly perform symbolic computation, the need for students to understand first principles, assess the reasonableness of results, and apply mathematical judgment may be stronger than ever. The talk will explore what mathematics educators may need to adapt, or perhaps preserve, in response to these changing learning environments.

RICHARD CLEARY, Babson College & Mathematical Association of America

---

DANIELLE COX, Mount Saint Vincent University
Evolving Perspectives

Over the last two decades my teaching practice has changed in many ways, and in other ways it has remained quite constant. This talk will focus on asking "Why?" and "How?". I will share reflections on why I think my teaching practice has evolved over the years and how that has affected my students.

GENERAL DISCUSSION,

MIROSLAV LOVRIC, McMaster University
Mathematical habits of mind in the 2020s

I have been asking myself many questions as I am planning to teach two math courses this Fall. At the top of my list is "How can I make sure that students will actually learn some math?" To answer this question, I am revisiting the idea of building a curriculum around the *m*athematical habits of mind to adjust it to the realities of the mid 2020s.

MARIE MACDONALD, Cornell University
Balancing lessons from teaching throughout the early to mid 2020s

In this talk I will reflect on how my teaching and mentoring has evolved over the past several years. In 2020 we witnessed an institutional push for kindness and accommodations. I have spent a lot of time thinking about how to retain that philosophy in 2026 when many students have lost motivation to generative artificial intelligence. I will also reflect on how the work of graduate TAs has changed over the years.

REBECCA MCKAY, University of New Brunswick - Saint John
University mathematics education is always changing but maybe in the same ways

Based on my experience teaching at a small Atlantic Canadian institution, in this talk, I will highlight some drivers of change and describe a few of these changes in recent years. What is notable is that many of the changes are just an evolution of previous changes and challenges. Then I will provide some ideas of how I will move forward in this ever-evolving teaching landscape.

TODD MULLEN, University of Prince Edward Island
Reaction is necessary (but is it sufficient?)

In 2026, undergraduate students are not engaging with class material in a way that is familiar to many of their instructors. When we react to this change with changes of our own in the curriculum, syllabus, method of instruction, etc., are we maintaining the quality of education we hope to provide? Or does it feel like we are just putting out fires? In this talk, I hope to honestly assess the ways that I have altered my teaching approach in the age of AI.

MEGHAN ALLEN ROSE, Mount Allison University
Breaking out of online echo chambers: is the manosphere influencing classroom behaviour?

As online male influencers increasingly shape discussions on gender and equity, diversity, and inclusion (EDI), how do their perspectives on gender roles and masculinity inform behaviour in our classrooms? Using an autoethnographic approach, this talk analyses instructional experiences in two courses at Mount Allison University (*Introduction to Data Science* and *Discrete Mathematics*) between 2023 and 2025. The talk examines patterns of student resistance to real-world examples related to EDI and consider how students' responses to these examples intersect with their use of AI to complete course tasks.

ALYSSA SANKEY, University of New Brunswick
Reflections on academic apathy

This talk will be a reflection on my teaching practice, how it has changed in recent years, and how student learning (from what I have observed) has evolved over the same time frame. I will focus on aspects of teaching and learning related to effort, resilience, motivation, and preparation. A central question for discussion is: What would encourage students to try harder?

LEE VAN BRUSSEL, McMaster University
Observations from an Early-Career Mathematics Educator

University teaching appears to be changing quickly. Attendance is declining, academic integrity concerns are becoming more complex, and take-home work increasingly invites cognitive offloading. This talk shares observations from an early-career educator on these shifts, including the role of AI and how it may weaken learning for some students while supporting more ambitious inquiry for others.