

1-Statement of Teaching Philosophy

A student said to me this year: “*Thank you for believing in me; it means more than you know.*” This captures my fundamental belief about teaching: my primary role is to **empower and enfranchise learners**. Everything I do in my teaching practice follows from this. It is a belief that puts students and the front of my thought, and constantly challenges me to modify, reimagine and rebuild all aspects of my teaching. Teaching and learning is visceral, personal, kind and human.

“*[What should a student do to succeed in this course?] Be inquisitive. 'Why does this formula work?', 'Why use this particular method?' etc.*” -University Calculus II Student, Winter 2017

MATHEMATICS IS FOR ALL PEOPLE

I am the first in my family to get a PhD, and I had to make up my playbook as I went. My grades were high, but I learned so little in my undergrad degree. The material was technical and unforgiving. The textbooks were written by prodigies to challenge other young geniuses. This is fundamentally opposed to, and in fact informs, by core belief that **mathematics should be accessible to all people**. This means that my courses are characterized by having many examples that let students actively play with the material immediately. It also means that I use warm-up exercises each class that connect to simpler more familiar material.

“*Micheal Pawliuk is a great instructor who is enthusiastic about teaching. He relates to students well and knows what kind of questions students have trouble with. He provides a lot of examples and explains things clearly.*” -Calculus! Student, Winter 2014.

“*His open support of struggling and marginalized students gave me confidence and good vibes.*” -University Calculus II Student, Winter 2017

WE'RE ALL HUMANS

I find attending lectures (as a learner) very boring and taxing. Our physical spaces are more conducive to sleep than learning. Typically the students are forced to stare at the instructor, and pretend like they are not in a room with 100 other students; this is not human, and it pacifies our students. I rage against this as much as possible, and deconstruct it when I can. **The primary activity in the classroom is discussion and learning.** “*I've been talking too much; talk about it with the person next to you. You've got 3 minutes.*” My target is to have at least a third of class time devoted to students grappling with the material. This number comes from a combination of experience, experimentation (I once taught a completely flipped classroom with 80% discussion) and discussions with colleagues.

“*The peer instruction format worked really well -- it's much easier to solve problems with my classmates for three hours than it is to sit through a three-hour lecture, and the time just flew.*” MAT 237 [Calc 3] student, Summer 2016.

LEARNING IS MESSY – TEACHING SHOULD BE FLEXIBLE

It's a strange ritual that we ask all students to meet in a specific room, for a specified period of time each day, for a predetermined number of meetings. What happens if a student is tired that day, or their kids get sick, or their anxiety has flared up? I used to rigidly ignore these things and pretend like the one-size-fits-all 36 hours of lecturing I did was where the learning happened. Reflecting on my own experiences as a student, and having honest discussions with my students has deeply transformed my teaching practice. Now I encourage students to learn in a way that makes sense to them, on **a schedule that works for them**. This means that I post clear objectives well ahead of time (including study guides and sample tests), I offer alternative sources for content online, and I use online discussion boards. If you're excited for learning multivariable calculus at 2AM, then the course structure will facilitate that.

"I loved how you guys were so helpful and prompt with your responses to my questions when I needed help. You were very available." Student from online course on computational thinking, Summer 2018.

LET'S TALK MATH

This has forced me to ask difficult questions about the value of in-person classes and tutorials. If students can learn the content online, why am I making them come to class? For me it comes down to an essential belief about my domain: **mathematics should be conversational**. Expressing and communicating math is a challenge for all practitioners at every level, and this very difficulty isolates us from each other. This is especially relevant for the social health of the university. This is why I build in so much discussion into my courses: low-risk chats with partners in-class, comparing strategies in tutorials, group quizzes, and online discussion boards.

"I liked the approach to learning in tutorials: presenting solutions to problems helps make more confident and eloquent public speakers, possibly helping in future roles as teaching assistants." -Topology Student, Summer 2014.

CONCLUSION AND CAREER GOALS

I see myself as an integral part of a world-class math department in Canada. Not only will I be developing talented undergraduates, but also colleagues, both TAs and instructors, by using innovative teaching methods in a clear, approachable way. Within five years I want to be a leader in effective math pedagogy in Canada.

"The course instructor is one of the best math instructors [I] have ever studied with during my undergraduate career." -Topology Student, Summer 2014.