1. Teaching Philosophy: Students as scientists and partners

As an instructor, I seek to train the next generation of scientists and citizen-scientists to be collaborative, reflective, and empowered to create knowledge and solutions to the grand challenge of biodiversity loss that faces biologists and our society. To train the students I work with in the diverse skills required for impactful careers, **I have <u>partnered</u> with undergraduate and graduate students to design experiential course-based research projects that span lectures, labs and tutorials, field work, and reflective assignments so that *<u>"students are doing what scientists do."</u>***

I instruct six different courses in invertebrate zoology, entomology, evolution, animal behaviour, and field research methods, and mentor undergraduate students in independent research projects and our science internship program. When I began my position at the University of Calgary, available teaching material for five of the six courses that I now teach was limited to the course syllabus and schedule. This allowed me to design all of the course components to align with my teaching philosophy of experiential learning. In each of these teaching contexts, I seek to foster transformative experiential teaching and learning through the following <u>four design principles</u>:

Students as partners. I seek to teach and mentor in a way that is transformative for everyone involved, which requires students to take risks, learn in new ways, and trust the instructional team. The design, development, and implementation of experiential learning in my courses is therefore a collaborative effort among current students, past students in the roles of peer mentors and undergraduate researchers, and graduate students. These collaborations are the source of creativity in my experiential teaching practice and partnering with students is the foundation that supports an inclusive and student-centered learning environment.

Authentic place-based research experiences. I would like students in my courses to be empowered and capable of contributing knowledge and ideas beyond the classroom. I have prioritized developing authentic research experiences for each of my courses that connect students with our community, such as studying urban biodiversity and exploring seafood sustainability in supermarkets. Through these projects, students are collecting new and needed information for our local communities, contributing their course-work to scientific databases, and disseminating their findings to the community.

Reflection, formative assessment, and collaboration. My goal is for students to be actively engaged in learning that develops both content knowledge and transferable skills that are aligned with their own values and future goals. To allow students to create meaning from their experiences, students develop their own learning goals and complete a range of reflective exercises, including weekly reflective check-ins, critical reflection exercises, and term learning portfolios. I prioritize providing students with impactful formative feedback, and use specifications-based grading to reduce the risks associated with learning new skills and being creative. Students also work on collaborative teams to further promote reflection and resilience to the challenges faced in experiential learning.

Reflective evidence-based teaching practices. I am committed to continually improving my experiential teaching practice through incorporating and reflecting on student feedback, peer observation, new ideas presented through workshops and conferences, conversations with colleagues, and collecting evidence of student learning and attitudes in my course through education research. Experiential teaching is an iterative endeavour that I enjoy experimenting with, and I attribute my career progress to developing a reflective practice that examines a variety of evidence, incorporates feedback, and is supported by a community of educators.