Julian Liber Teaching Statement

Revised April 8, 2020

As an instructor, we aim to develop how our students interact with their world. How will students interpret new information that they learn? How will these students use their basis of knowledge to make decisions and innovate new ideas? What will matter to them after they leave the classroom? Additionally, we want to enhance justice and equity in our classrooms to bring the benefits of an education to everyone.

Most of my experience teaching has related information literacy, as well as using computational tools to understand the world around us. The skills involved in information literacy are foundationally to active citizenship, informed decision making, and are highly applicable to many fields of work. To teach this, methods must involve active student learning, whereby memorization and recitation are exchanged for exploration, problem solving, and synthesis.

Especially in tasks related to data analysis, finding and using online and other resources is itself a valuable skill. Additionally, projects and labs are ideal to understanding concepts and developing skills. This extends to methods of assessment. While large exams are often easier to execute, the assessment environment generates issues for student well-being and may not reflect how students will apply their education. Where possible, I prefer to implement smaller, regular assessment where resources are available. Smaller assessments such as these may encourage learning through regular practice, decrease test-associated anxiety, and provide feedback for improvement.

Furthermore, as a biologist, I value curiosity and exploration of the natural world and natural phenomena. In the non-majors biology class I taught, I included opportunities to examine and discuss as many organisms as possible. Natural history of organisms has inspired many biologists, including myself. Even if none of my students transition to biology fields, they will have at least gained a greater appreciation of their surrounding and why it matters to them.

Generally, these classes are most successful when they engage students, which motivates success. Student initiative and ownership of projects, applications involving relevant and contemporary topics, and participation in group work may all improve student motivation. I prefer that students can develop project ideas, alone or in groups, and leave the class with a substantive, original product. However, because students may be novices in the course's topic, I provide guidance in developing their work. These projects were a source of substantial learning in my education, and I hope students can access the benefits of deep, involved learning.

Given the recent (currently active) COVID-19 pandemic, the inequalities in educational access and support have become abundantly clear. Many students lack secure access to necessities, while yet more have barriers to success in forms of health, financial, or social obstacles. While the classroom environment should be made similar for students from all backgrounds, the institution and the professor additionally have the responsibility to provide support for students. This requires flexibility, trust, adaptable design, and a commitment to student success. As a teaching assistant, I worked to students to develop "learn-arounds", which facilitated student

success while adapting to non-academic obligations. I prefer to use freely available educational resources and software, because these are both applicable (academic papers compared to textbooks) and free students from another financial burden. While synchronous learning – usually online, but also for lectures – provides advantages of quick feedback and student attention, students who lack access to high-speed internet, or who cannot attend class may miss out. Classes also need to be designed to account for student abilities, such as providing captioned videos or easily readable handouts. Therefore, I prioritize activities or materials which can be completed by as many students as possible, with respect to barriers they may face. From the start, classes need to be designed with equity in mind, and with continuing commitment to student success.

As an instructor, I take the success of my students personally. I encourage their questions and personal discussions, and I help them pursue their curiosities. I believe that a single good class may change how students think about their world and empower them to succeed. Yet, student success also depends on how we can anticipate or adapt to student needs. I aim to make my classroom inclusive, inspiring, and productive for all students I have the privilege to teach.