

Our mission as educators is to disseminate knowledge, teach specific skills, and prepare students for their future careers. To do this, my teaching philosophy can be subdivided into three foundational pillars: (1) **clarity** of learning objectives and assessments, (2) **communication** concepts to diverse audiences, and (3) **empower** students to solve new problems.

(1) Clarity - Students enter a learning environment with little knowledge of what they are expected to learn and how they will be evaluated. It is up to the instructor to articulate this. A combination of traditional lectures, active learning exercises, and auditory or visual supplements convey information to students in ways that best suit their preferences. Similarly, assorted assessment techniques, such as minute papers or problem sets, allow students to evaluate their mastery of the material and seek further assistance if needed. As a teaching assistant for Quantitative Genetics and Genomics (BIOMG 4830), I began lab by connecting the assignment first back to the broader course objectives and then to the types of questions used to evaluate their understanding of the topic. My goal is to use a variety of instructional tools to help students link abstract concepts to concrete techniques to higher-level problem-solving.

(2) Communication - Students will pursue careers in areas ranging from research science to public policy to business and more. These fields require individuals to communicate ideas and information to diverse audiences. Highly visible examples not only spark student interest but also allow students to evaluate differences in communication techniques. As a guest lecturer for Human Genomics (BIOMG 4870) on direct-to-consumer genetic tests, I had students evaluate differences between how Senator Elizabeth Warren communicated the results of her genetic ancestry tests with how businesses, such as 23andMe, and genetic researchers explain these results. This highlighted not only the dangers of miscommunication but also why we must work with other fields or local communities, in this case, indigenous groups, to effectively convey information. Incorporating various presentation styles, such as short oral presentations or longer written papers, allows students to practice communicating their ideas in different formats.

(3) Empower - Leading students to independent thinking, where they can tackle problems on their own, is my ultimate goal when teaching. Students must feel comfortable trying new techniques, potentially failing, and reaching out to colleagues for assistance. To do this, I integrate questions into assignments that allow students to connect the material to their own interests, and, at least once a semester, I provide students with an opportunity to peer review each

other's work. I want students to leave the classroom feeling like not only are they capable of contributing their own ideas to the field but that they are also able to critique and provide helpful feedback to others' ideas.

As an instructor, I want my students to clearly understand what concepts they are going to learn, how to share their work effectively, and how these skills can be applied to new problems.