Teaching Statement

My approach to teaching is grounded in over seven years of experience instructing courses in statistics, mathematical modeling, and applied mathematics, during which I have continually evolved as both an educator and mentor. I view teaching as a reciprocal process—one where I guide students toward mastery of subject matter while continuously improving my own teaching through reflection, student feedback, and outcomes assessment.

I am passionate about helping students bridge the gap between abstract mathematical concepts and real-world applications, particularly in fields such as statistics, applied mathematics, and data modeling. I prioritize active learning strategies, integrating applied projects, case studies, and data-driven exercises into my courses to engage students in hands-on problem-solving. For example, I have taught mathematical modeling using real-world datasets in public health and environmental science, enabling students to apply methods such as simulation, modeling, and machine learning to analyze complex systems.

Recognizing that many students may initially feel intimidated by mathematical topics—especially those from non-mathematical backgrounds—I design coursework that is accessible, inclusive, and relevant. I use practical examples, such as modeling and predicting disease spread, to demonstrate the usefulness of mathematics in everyday life and public health settings. These connections help students develop confidence and foster a curiosity for deeper exploration of mathematical ideas.

In every course I teach, I intentionally create an inclusive learning environment that respects diverse student backgrounds, experiences, and learning styles. I emphasize collaboration through team-based assignments, peer reviews, and class discussions, ensuring all voices are heard. I also encourage iterative learning by rewarding effort, growth, and problem-solving processes alongside correct answers. I work actively to support all students, maintaining regular office hours and offering individualized mentoring, particularly for students engaging in research, internships, or capstone projects.

I am committed to experiential learning, a core value of your university. I have successfully supervised undergraduate research projects that integrate applied mathematics, data science, and statistical learning. My goal at your university would be to continue offering students hands-on experiences through research collaborations, partnerships with industry, and projects using real-world data, particularly in areas such as modeling, public health analytics, and environmental risk.

Additionally, I seek to incorporate innovative assessment tools that emphasize critical thinking and scientific communication, such as take-home data analysis projects, collaborative reports, and reflective essays. I regularly revise my courses based on student feedback and learning outcomes, and I am committed to ongoing professional development in teaching and pedagogy.

Looking ahead, I am eager to contribute to your university’s mathematics, statistics, and computational epidemiology programs by teaching courses such as statistics, data modeling, and applied mathematics—while also participating in the design of new courses that address emerging needs in the fields of machine learning, predictive modeling, and computational epidemiology.

Ultimately, my goal is to empower students to become analytical thinkers, adaptable problem-solvers, and ethical professionals who can apply mathematics, statistics, and data science to solve real-world challenges and contribute meaningfully to their communities and industries.