

Starting Off Strong*Nicole Dalzell, Wake Forest University*

First semester undergraduates are some of my favorite students to teach. They are excited, eager, and bring a bright energy into the classroom that no other group of students can replicate! Contrasting their excitement, however, is a struggle to adjust to the demands of college. This includes handling life responsibilities on their own, balancing academics and social goals, and dealing with stress and failure. For students with disabilities, this is also the first time students have had to advocate for their own accommodations. The process in K-12 is vastly different than it is in higher education, and requesting and implementing their accommodations college is a huge leap for these students. In this talk, we will discuss tips for structuring a course to support first year students in their transition to college. The emphasis on structure, clear expectations, and creating a safe space for failure and growth is designed to help students build a strong foundation for success in college regardless of their backgrounds in K-12. We will also chat about how some of this structure translates into courses for non-first year students to continue the process of helping students develop successfully in college.

A Focused First Impression*Ashley Mullan, Vanderbilt University*

In many K-12 environments, students gain little formal exposure to (bio)statistics and data science. Opportunities such as intensive summer courses can introduce students to ways that data interact with their daily lives. In this talk, we will discuss the development of a weeklong course geared towards high school students, incorporating the perspectives of both instructors and course alumni. We will cover the challenges of selecting and arranging course topics in an accessible order, creating engaging activities that break up the monotony of a full instructional day, and scaffolding a project that incorporates programming, analytical decision making, and communication. Attendees will leave with renewed energy for providing students with a focused first impression of (bio)statistics and data science.

Meeting Learners Where They Are: Teaching Statistics Across Diverse Audiences*Taylor Krajewski, Duke University*

Effective statistics education requires more than technical expertise; it requires understanding who the learners are, what motivates them, and how they will ultimately use statistical thinking in practice. Students enter quantitative learning environments, which can extend far beyond the traditional university lecture setting, with vastly different goals, backgrounds, and relationships with mathematics and statistics. Some aim to become statisticians or methodologists, while others seek to become informed collaborators, consumers of research, or practitioners working in increasingly data-driven fields. Drawing from experiences across traditional and nontraditional educational settings, including high school mathematics, graduate-level biostatistics instruction, interdisciplinary mentoring, and applied clinical research training, this talk will

reflect on lessons learned from tailoring statistical education for diverse audiences. The presentation will discuss approaches to adapting communication style, technical depth, examples, and instructional structure while maintaining rigor, engagement, and accessibility in a learning environment that builds both statistical reasoning and confidence. The talk will also reflect on how experiences across varied teaching and mentoring roles can teach educators to become more flexible, intentional, and effective communicators.

Tailoring Biostatistics Seminars for Emerging Investigators and Medical Trainees*Jamie Joseph, Henry Ford Health*

The United States Medical Licensing Examination (USMLE) Program is a series of three exams required for licensure to practice medicine in the United States. To become a practicing clinician, medical students and residents must pass all three exams, which include a biostatistics component. In this talk, we outline the process of designing and teaching a 20-part introductory biostatistics seminar series for residents and post-doctoral fellows. The series supports both USMLE preparation and skill development for trainees learning to lead scientific research projects independently. We will discuss strategies for tailoring lessons to a diverse audience with various levels of quantitative experience, recruiting appropriate speakers, and refining course content to ensure that students gain comfort with relevant epidemiological and biostatistical terminology and methods while also giving them the training for USMLE-specific examination questions.

