Torbet McNeil, Teaching Statement

My teaching goals are to develop higher education policy and administration knowledge, technical expertise incorporating data science methods, and soft skills in areas such as ethics and communication. I equip students with conceptual training along with practical applications. To achieve my goals, I integrate discussion and project-based learning, student-centered approaches, and education outside the classroom.

I make discussion and project-based learning central to the learning process. For example, I would have students critique a news item, such as the Data Science and Literacy Act of 2023, and then lead discussion using questions or activities they prepared in advance. Such discussion promotes better connections between course content and developing policies and issues. In designing a syllabus for an introduction to data science class, I would select readings on European Union data privacy regulations and supplement them with examples in higher education policy and administration. Ensuing guided discussion would enable critical reflection on how these policies would work in the United States and, in particular, why U.S. policymakers have not enacted them. A follow-up writing assignment would allow for further reflection, demonstrating understanding of the topic and main points of contention. Additionally, I have begun development of data for social good projects that are shown to increase student motivation and persistence. These projects afford real-world, meaningful experiences while addressing organizational data analytics needs for grassroots-level societal improvements.

I take a student-centered approach, particularly for the instruction of technical skills. For example, when teaching the fundamentals of the R programming language, I provide an overview of new concepts while students simultaneously enter and run code on their own computers. After class, either individually or with others, students complete problem sets that require them to investigate data by creating variables and conducting exploratory analysis using visualizations. These exercises promote enhanced retention and development of coding, data management, and analytical skills. Projects related to topics in higher education policy and administration provide further application opportunities.

I am committed to education outside the formal classroom. As a co-leader of the Association for Public Policy Analysis and Management data science community group, I am designing interactive panel discussions on the alignment of data science and public policy and management training, as well as the impact of data science on public policy and management careers/research. I want participants to take away from these discussions a broad, interdisciplinary interpretation of data science, encompassing quantitative skills, domain expertise, and soft skills including ethics and communication. Additionally, I am mentoring a recent college graduate from an underrepresented community in data science in the process of applying to graduate programs. I provide her with resources on conducting informational interviews and crafting individual development plans as she navigates the data science education landscape.

In sum, my strategies involve the integration of discussion and project-based learning, student-centered approaches, and education outside the classroom. I foster substantive domain understanding along with technical and soft skills to address practical problems. I encourage active involvement in ongoing issues and the production of knowledge. This prepares learners for continued engagement in these areas in their academic and professional lives.