Teaching Statement

I view teaching as a valuable platform to impart my construction management expertise to my students and instill in them my passion for the transformative role construction managers can play in the world. Additionally, I see it as my responsibility to equip students for the future of construction, enabling them to proficiently harness diverse technologies and cutting-edge tools to tackle complex construction challenges while fostering independent thinking. My aim is to nurture self-directed learners who can adeptly navigate the ever-evolving landscape of work and construction.

Teaching Methodology: Since starting my Ph.D., I have had the opportunity to be a graduate teaching assistant for two construction technology-related courses in our construction management program: (1) BCN3255 Graphic Communication in Construction and (2) BCN4252 Intro to BIM and Technology Application in Construction. This three-year exposure has allowed me to develop, apply, and refine my teaching skills while participating in different aspects of classroom instruction. For example, my responsibilities as a teaching assistant include instructing class sessions, reinforcing lessons presented to students by professors, assisting students during class and office hours, as well as proctoring and grading assignments and exams. These in-depth instructional experiences enabled me to establish my teaching approach and gain insights into how students learn in the classroom. My class design is based on the "learning by doing" paradigm, where students actively engage in applying knowledge and iteratively improve themselves. My strategy for instruction is to ensure that the students understand that technology is merely a tool. I focus on not only the technical application but also the rationale for the use of technology in construction-related contexts. This means I also significantly emphasize having real-world use cases from industry. Based on my experience, such use cases will help the students fully understand 'real-life applications' of the knowledge and skills they learn in class, so they comprehend what they learn and why they study it. In addition to integrating real-world use cases into my class curriculum, I anticipate actively implementing field trips (physical and virtual) together with having guest lectures and course champions from industry practitioners, so students can observe and reflect on current industry practices, identify their needs, and better envision the future of the construction work.

Infusing Research into My Teaching: As an educator and researcher, I infused my research into my teaching. That way, students would not be restricted to traditional textbook information but rather become better prepared for the future of work in academia and industry by exposing them to innovative technologies being adopted in construction while discussing their implementation trends, benefits, and barriers. For example, as a result of the COVID-19 public health concerns, many educators had to switch to online course delivery and cancel the majority of location-based activities (e.g., site visits or field trips). To address this issue, I developed a virtual online learning environment to offer an in-depth learning experience through collaborative communication affordances in a virtual collaborative space that resembles a real-world site visit. The outcome of the study shows that such virtual collaborative environment present unique opportunities to enable online delivery of spatiotemporal contexts of sites and offer an effective remote alternative when these learning opportunities are not available. This project received the **Best Conference Paper Runner-Up award** at the *2022 Associated School of Construction (ASC) International Conference*, and the extended version of the paper was also published in the ***Elsevier Journal of Advanced Engineering Informatics***. To further enhance the effectiveness of such virtual site visits, I introduced a novel approach that integrates active learning strategies within online site visits, offering students a structured learning progression and opportunities for collaborative problem-solving. As an advocate for emerging technologies in construction,

particularly construction robots, I am currently involved in collaborative efforts to create training and learning programs through the use of virtual reality. These programs aim to improve students' comprehension of robots without subjecting them to potential risks or high expenses associated with real robots. This endeavor reflects our commitment to preparing the next generation of construction professionals to embrace and contribute to the advancements in construction technologies.

Continued Improvement of my Teaching: I recognize that teaching is one of the highest priorities in academia. As such, I am committed to continually refining my teaching skills through active participation in courses, workshops, and conferences, ensuring I contribute meaningfully to my university's educational mission. During my Ph.D., I focused on bolstering my teaching expertise by enrolling in graduate-level courses at UF College of Education, notably "***EME 6074: Mobile Technologies in Education***" and "***EME 6156: Games and Simulations for Teaching and Learning***". These courses provided hands-on experience in understanding how emerging technologies can profoundly reshape STEM education and online learning. Looking ahead, I foresee the integration of these technologies into STEM education, encompassing computer simulations, artificial intelligence, the Internet of Things, and virtual and augmented reality. This will enhance learning experiences in diverse classrooms and online settings. My coursework and research experience have equipped me with the skills to design educational interventions that harness technology to facilitate student learning and mitigate learning obstacles. Nevertheless, I believe teaching is an ever-evolving journey, and I anticipate continuous growth in this domain. By aligning my academic endeavors with student feedback and interests, I aim to further refine my teaching methodologies. My experience has shown that when students actively contribute their insights throughout a course, the collaborative outcome often surpasses what I might have achieved on my own.

My desire to pursue an academic career is deeply rooted in my passion for teaching and engaging with students regularly. After all, teaching is a fundamental path for knowledge transfer. I am confident that my academic background, teaching experience, and educational-related research activities have equipped me to effectively teach in an academic university. My goal is to make the students' academic journey as enriching and captivating as possible. Additionally, I am keen on broadening my teaching repertoire to encompass more topics, aligning with your program's vision and the evolving trends in the construction industry.