Without exceptional mentorship, I would not be in the final stages of obtaining my Ph.D. degree. I owe my deepest gratitude to individuals in my academic and professional life who have sacrificed their time, lent me a friendly ear, and provided sage and impartial guidance. I have had three distinct mentors during my undergraduate and graduate degrees and one during my time employed as a forensic engineer. Two professors in the field of Civil Engineering (CE), one at the University of Florida (UF) and one at the University of Texas (UT), were key in helping me to decide about graduate school, balancing work and social engagements, and discussing what I could do with my life. While employed at a forensic engineering firm, my immediate supervisor invited me to professional society meetings, taught me tips and tricks for completing surveys of damaged structures, and encouraged me to plunge into solving challenging design problems on my own. Currently, I attribute my continued presence as a Materials Science and Engineering (MSE) Ph.D. student to a professor in my department. She has been a source of support and reality checks, providing a balanced and unbiased voice whenever I have had issues. I have been fortunate to experience superior mentorship that has helped me through the various stages of my life. The phrase “Noblesse Oblige”, the motto of Tau Beta Pi, translates to “Nobility obliges”. Tau Beta Pi interprets this phrase to mean “To whom much has been given, much is expected”, and, thus, I strive to provide the same sort of guidance for others.

I first became interested in mentoring as an undergraduate student. I was uncertain about what I wanted to study, but I eventually settled on CE, where I felt I could be challenged and design functional and permanent structures. At times, the degree was certainly challenging, and I doubted my choice of majors. Unfortunately, I am not the first engineering student to have those thoughts; the retention rate of engineering students is around 50% between the first year and graduation. Having considered switching out of the engineering program, I was thrilled to be one of the first mentors to participate in the Engineering Freshman Transition Program (EFTP), established over 10 years ago. The purpose of the program was to provide a means for new students to ask questions, seek counsel, and foster students’ transition to undergraduate engineering. I kept in weekly contact with my mentees through a variety of methods including e-mail, social networking, and in person. I was a mentor for two years; during the second year, I was a lead mentor, overseeing several new mentors and their groups of mentees. Each year, I mentored around 8 to 10 mentees, and I am extremely proud to say that approximately 75% of my mentees graduated with engineering degrees. In addition, the EFTP program is still available to facilitate new students’ introduction to engineering.

Over the course of my Ph.D., I have jumped at opportunities to support students. I have mentored both an at-risk middle school student through the UF Project Mascot program as well as an undergraduate student conducting research in our laboratory through the University Scholars Program. I met with my middle school mentee weekly and assisted him with homework, played games, and simply talked. My favorite part of the week was how his face brightened when he saw me. In contrast, the relationship with the undergraduate researcher was heavily technical, though we also found time to discuss academic and career goals. I instructed him on how to use lab equipment, met weekly to discuss research results, and provided guidance and suggestions for his research. He won multiple awards for his research, including the best paper award from the Mechanical and Aerospace Engineering (MAE) department and second place for a conference presentation while competing against senior-level graduate students. Together, we submitted a manuscript to the Journal of the American Ceramic Society with him as the lead author. He has returned to our lab as a Ph.D. student, and he has immersed himself in two new, fast-paced research projects and assumed the additional responsibility of purchasing supplies for our lab group.

From my experiences both as a mentee and a mentor, I have developed a two-stage mentoring philosophy: 1) frequent and robust support at the beginning of the mentor-mentee relationship to cement the bond between the two participants and 2) tapering of the regularity and formality in meetings and a more laissez-faire approach to problem solving. Early in the mentee-mentor relationship, it is vital to establish a connection based on trust and reliability, and I have noted that regular meetings in person are the best way to build this relationship. With the undergraduate researcher in my lab, we had daily contact while I spoke to my freshman mentees and middle school student on a consistent weekly schedule. I struggled to form this relationship with several of my mentees during my time in EFTP, and I have also
tried and failed to establish connections with potential mentors that did not have the time or interest in mentoring. I learned that a strong relationship cannot be formed if both members are not willing to contribute to the partnership. The second stage of my mentoring philosophy is to challenge mentees to solve his or her own problems once he or she is more comfortable. When the undergraduate researcher first began working in the lab, he had many questions about materials concepts and lab procedures. I would initially show him how to do something, let him try it on his own with my supervision, and then let him work completely on his own and come to me with questions. I was (and still am) there to answer questions, but I try not to provide unsolicited advice. I also had many more questions and need more guidance when first beginning my undergraduate, graduate, and professional periods in life. As I settled into the routine and began to understand more, I discovered that I needed less technical advice and more professional advice. Though the mentor will help develop one’s knowledge and skill set, it is critical to stretch a mentee’s abilities to solve problems, whether they are technical, personal, or professional.

Without being able to knock on a door and hearing a friendly “Come on in” in response along with a welcoming smile, I would not be where I am today. I hope that I have had a similar impact on those whom I have mentored. As I move into the next stage in life as a professor, I will continue to seek guidance from mentors in official and informal mentoring relationships. I will be greatly appreciative of counsel to help me navigate the tenure process as well as useful suggestions to improve my teaching. I also look forward to advising and mentoring undergraduate and graduate students. Though developing and maintaining a strong mentoring relationship requires a commitment of time and energy, the mentor benefits from the relationship; I am delighted with what my former mentees have accomplished, and it gives me immense satisfaction to think that I played a small role in their success. Regardless of age, profession, or job position, we all need an ally both championing and pushing us further to reach our full potential.