Benjamin T. Manning
Engineering Education Teaching Statement

My passion for teaching comes from the need to help others feel the joy of discovery. I was fortunate enough to have the joy of discovery instilled in me at a very young age, and I have been working on encouraging others to chase that joy since I was about sixteen years old. I have multiple years of teaching experience both at the high school and college level, mainly teaching engineering, mechatronics, and general technology courses.

I started teaching professionally in 2018 as a mechatronics instructor at Sims Academy of Innovation and Technology. Up to the fall of 2020, I developed and taught curriculum for the mechatronics pathway, along with a motor controls dual enrollment course through Lanier Technical College for students who would like to get college credit and complete the mechatronics pathway. In 2020, I was awarded Teacher of the Year in Barrow County for special programs. In 2021, I transitioned into developing and teaching a new STEM course for the Barrow Arts and Sciences Academy that combined Engineering and Computer Science into one course for students in grades 8-12. In all of these courses, I implemented problem-based learning teaching strategies that allowed me and the students to address a wide range of topics with problems that impacted the students directly at home, school, work, or the general community. This strategy allowed for students to work independently and in small groups to solve personal problems while learning the content that they needed to learn, and I learned a lot too!

While teaching high school, I was also an adjunct instructor for mechatronics at Lanier Technical college. I taught Industrial Instrumentation, AC theory I, AC Theory II, and Motor Controls I for students going through the 2-year technical program. These courses allowed me to fine-tune my technical skills, and focus on different teaching strategies that focused on making relevant connections to real life and industry. While most of the students in these courses were very focused on getting a job to provide for their families, I was still able to encourage many of them to work on personal projects that interested them, and solve small problems around their home and community while learning different technical skills and content. I still get emails from some of the students talking about their side projects, which is always a highlight of my day.

I am now working since June of 2021 at Purdue University where I coordinate ECE20007, the introductory electronics course for Electrical and Computer Engineering. In this time, I have worked with over 150 teaching assistants, undergraduate and graduate, and have started an experimental section of ECE20007 to develop and try out different teaching strategies to ensure that everyone that goes through the course gets an effective and practical experience regardless of their discipline.