Teaching is much more than just relaying information to students. My primary goal as a teacher is to help students obtain crucial knowledge, skills, and experiences to be successful in their professional careers. Engineering is fundamentally a problem-based discipline wherein students apply the concepts covered in class to solve real-world problems. To this end, I emphasize the importance of active learning, critical thinking, inclusive teaching, and teamwork in augmenting their problem-solving skills.

It is important to recognize that learning is reinforced by students' active participation. I constantly strive to engage with students to ensure that they are excited about the subject. I aim to keep my class interactive by posing open-ended questions that would stimulate potentially interesting discussions. In my own experience, mastery of a subject had a strong correlation with the teacher encouraging critical thinking and urging students to ask questions; being constantly involved in the learning process improved my ability to tackle problems. When students ask me questions regarding concepts that they need help understanding, I never provide the answer directly. I instead provide them with hints and ask them questions that lead them to the answer. Students have affirmed in their teaching feedback that this enhanced their logical thinking skills and left them feeling confident about their abilities at the end of the process.

Students' backgrounds and levels of prior exposure are diverse, and a teacher needs to recognize that by offering multiple ways to explain concepts. For example, when I was a TA for a transport phenomena class, I illustrated how the scalar transport equation can be used to model events that lead to blood clotting, the cooling of motorcycle engines, or to predict the weather. I then went on to explain key concepts in the class such as pseudo-steady diffusion and the lumped capacitance approximation in the context of these applications. This manner of explaining concepts to students in a way they can relate to the most recognizes that there is no one-stop solution to grasp a subject. I further encourage students to try to find individualized strategies to better understand concepts.

There is a lot of value in students solving problems in groups, since teamwork is an important aspect of most careers, particularly in engineering. When I was a TA for a numerical methods class, I noticed that a few students had issues with translating their logic into code. However, other students were instead finding it difficult to formulate the logic. I paired up students with complementary skills who were then able to help each other out. I believe that this strategy helped students gain invaluable experience to practice working with others and present their ideas effectively. Furthermore, it allows me to expose them to real-world problems. I have also experimented with platforms like Piazza to allow students to answer each others' questions. This allows for the practice of learning through teaching, which I find is highly effective in their understanding of course material.

Making efforts to establish a rapport makes students more comfortable in reaching out to me with their problems. I see it as a way for teachers to appreciate the diversity in their class. I always try to learn more about my students through interactions during office hours. This has led to some of them maintaining contact with me beyond the classroom to discuss matters such as career options and graduate programs.

Finally, I have a genuine passion and dedication for teaching. I love to be constantly challenged by bright and inquisitive minds. I strive to be a role model to students and to lead by example. When I successfully explain a tricky concept to students and I see a spark on their faces when they understand it, my joy is unbounded. Hearing students describe me as enthusiastic, knowledgeable, approachable, and dedicated gives me an immense sense of satisfaction and accomplishment. I hope that my teaching efforts help produce engineers who make significant contributions to society.