My philosophy of teaching can be better explained as a philosophy of learning. It is important for me to understand how students learn, and how to adjust my teaching strategies in response to the pace, and possible difficulties of student understanding. I am a firm believer that learning is most effective when it can be made personal and the learning approach more closely matches with a student’s learning style.

How can I facilitate the learning?

I find the wisdom in this ancient proverb "Tell me and I'll forget; show me and I may remember; involve me and I'll understand". I believe that students learn better when they are engaged and involved with the learning since this requires students to be more active in the learning process.

For effective learning, it is crucial to maintain and increase a student’s participation and engagement. In my personal experience, it is easy to be misled by a few good students who are able to engage and this doesn’t mean the majority of students feel the same way about the course participation. I always try to bear in mind the weakest (and often the quietest) and try and not to be lured into accelerating due to few bright sparks at the front of the classroom. I always bring examples and gauge the class’s responses and also provide relatively straightforward exercises to gauge individual student understanding and participation. I also believe that diversity can affect student learning outcomes in many ways, including diversity of learning styles such as visual, auditory and tactile learning. In my classes, I offer a healthy mix of lectures, readings, homework, guest speakers, student presentations and "hands-on" programming when the course content offers such opportunities.

A key component of facilitating the learning is evaluating student performance. I especially focus on attention, relevance, and confidence to motivate my students to become better learners. By engaging students in group discussions, I incorporate the students’ reflection on the topic and support them with the resources they need to effectively take advantage of the learning process. I offer challenging extra credit questions and homework assignments to encourage learning outside the classroom and to test student knowledge of key concepts. This also gives me an extra opportunity for a fast and regular feedback on student learning outcomes. I design exams not to encourage note memorization, but rather to challenge students to use learned concepts to solve real world problems. The use of case studies has been my most effective means of engaging learners. With case studies, students can view the subjects they are taking as a part of a coherent whole and be able to apply what they have learned to grasp the basics. These evaluations also inform my decisions on modifying teaching methods or course materials. I also believe that consistently listening to student concerns and assessing my changes allow me to improve the classroom experience.

What can I do to continue to improve as an educator?

I believe that the capstone to growth as an educator is to reflect on my own performance to find areas of improvements. For example, in order to improve my teaching techniques I participated in the Texas A&M Academy for Future Faculty (AFF) CIRTL Fellows program. Center for the Integration of Research, Teaching and Learning (www.cirtl.net) is a collaboration of research universities that seeks to produce a national STEM faculty who are both skilled researchers and excellent teachers, and who will be prepared to succeed in careers across the landscape of higher education. Subsequently, I served on the AFF steering committee at the capacity of assistant director of program evaluation to help organize and oversee the annual CIRTL certificate program. In addition, through the service on the board of Aggie Systems Honor Council and Graduate Appeals Council, I have gained valuable insights to understand academic misconduct and to facilitate remediation efforts for students found responsible for academic violations. I was also a member of the Student Organization Accountability Board (SOAB) which responds to alleged
student organization violations of the code of conduct. The work involves educational processes designed to promote safety integrity and organization development for student organizations and their members. I understand that responsibilities of a professor extend beyond the classroom and, while these are examples of how I juggle teaching and research with these services, they have also provided an excellent opportunity for me to improve as an educator and connect with a network of faculty outside my discipline who has insightful approaches to student learning.

Experience

I had the privilege of being nominated for the inaugural Graduate Teaching Fellows program during Fall 2015 at Dwight Look College of Engineering, Texas A&M University. The fellowship allowed me to co-teach a class as well as play an active role in setting up course content and managing a TA and Grader for the course. I co-taught the senior introductory course in Computer-Human Interaction (CHI); the audience consists of 91 students in Fall 2015, senior computer science majors. As part of my instructional duties, I designed the course content, and the pedagogical activities (lectures, assignments, quizzes, project guidelines and exams), with the help of my teaching supervisor Richard Furuta during the semester, and some excellent TAs throughout. In addition to the formal teaching experiences, I have actively engaged in mentoring students in a Texas A&M University summer Research Experience for Undergraduate (REU) program. As a senior graduate student in my research group, I mentor graduate and undergraduate students articulating their research ambitions, identifying topics of research interest, designing evaluations, and shaping their thesis topics. As a peer mentor at the Computer Science Graduate Student Association of Texas A&M University, I assist new graduate students in acclimatizing to the culture within the university, helping students to get involved in research, as well as advising about potential course selections.

I try to incorporate many of the same principles of my teaching philosophy into my advising and mentoring, engaging with students and guiding them depending on the unique interests and needs of each person.

Teaching Interests

My area of expertise includes courses related to Human Computer Interaction, Information Retrieval, Machine Learning and Biometrics. I am genuinely interested and excited to teach any other courses in the undergraduate and graduate core-curriculum relevant to capstone design, cybersecurity, database systems intelligent user interfaces, digital libraries and information science since I will be able to provide a practical context and cutting edge scholarship from my own research to potentially inspire students to learn the latest techniques and/or pursue these subjects at an advanced level.

I am also interested in extending course offerings beyond the formal curriculum of computer science. For example, I desire to develop a course related to “professional internships and their value towards learning and networking” for STEM majors. In such a course, an enrolled student would develop analytical and problem solving skills, refine interpersonal skills, approach a career realistically, and perhaps reconsider career choices. Course work would emphasize leadership development, communication professionalism, organizational behavior and socio-emotional skills necessary for contemporary work-life. I bring to the table experience interning in both research and development. I would be able to help a department provide a coordinated approach to preparing students to participate in internships and help students apply academic knowledge and critical thinking skills to address situations and challenges that arise in modern work environments.

To summarize, my teaching philosophy includes three key goals: to continue to improve as an educator, to understand the needs and goals of my students, and tailor my teaching to them.