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STATEMENT OF PHILOSOPHY OF TEACHING

My teaching philosophy is “simply teaching is not enough”. Education is the process of shaping the way of thinking. Balancing the teaching materials is an art. My role is not only to guide students to learn what should be learned but also to teach them how, where and what to learn. Teaching is to build the “fishing skills” of STEM students rather than simply feeding them with the “fish”.

According to Plutarch, “*The mind is not a vessel to be filled, but a fire to be kindled*”. I feel that my role as a teacher is to kindle the mind’s fire of each student. As with any fire, the conditions must be appropriate to allow it to burn. To make the learning process attractive and intriguing, my practice is to motivate my students by asking “*Why we need to learn this part*” and “*What the relationship is between this part and other parts*”. I also contribute to the learning atmosphere by using a variety of teaching methods such as group projects (team building), in-class demonstrations, computer visualization and internet resources. Teaching is a process requiring constant innovative ideas as socio-technological environment involves. I like to practice “paperless lecturing” with the aid of PowerPoint LCD projector, e-mail, ftp and web-servers. When possible, I develop the web-based courses to deliver rich-content materials.

I am increasingly committed to the goal of instilling a broad-based, interdisciplinary system perspective in STEM students. Based on my experience, students who can see the “big picture” do better in understanding the role of their particular expertise in the overall system development cycle and are better prepared to deal with the complexities of future “real world” work place. This is reinforced by my research and new reactor and radiation system development experience, which have exposed me to the great need that research centers and companies have for engineers who understand the overall process from a basic physical concepts to the state-of-the-art engineering system. My goal is to develop such a system viewpoint in my students.

In order to improve my teaching skills, I highly value the role of feedback from others. Student evaluations are one of the most valuable tools a teacher has. By asking the students what methods are effective in the middle of a term, I can adjust to the specific needs of class, and thereby improve both my effectiveness as a lecturer and the students’ satisfaction with the class.

Teaching is also rewarding process where you can learn from the class. Teaching and learning are bi-directionally beneficial. With enthusiasm in teaching, I am convinced that a solid foundation in engineering and science provides a unique perspective from which one can approach the solution of large-scale problems of modern world.