My Teaching Philosophy

"Give a man a fish, and he eats for a day. Teach him how to fish, he eats for a life time"-an ancient Chinese proverb

"Teach a college student just knowledge, and he forgets them after exam. Teach him how to acquire knowledge, he benefits it for a life time"- Changfeng Ge

Some courses taught by my college professors are now obsolete; however, the capabilities for self-learning and critical thinking acquired in college are survival skills for me as an "international traveler." I had only three meetings with my adviser while developing my PhD thesis. These meetings included the thesis proposal and thesis defense. Email had not yet become a convenient communication tool between student and teacher. Yet, I thanked him for assigning me to an industrial project as my thesis. The experience of going through the process of bringing a project to fruition via the discipline of self-learning is a key strength of mine.

As a professor, I think it is our responsibility to prepare our students with the skills of self-learning and self-development. Professors should emphasize the importance of the critical thinking process in developing these skills and acquiring new knowledge. Activities within the classroom should be implemented to teach and reinforce the critical thinking process and the idea of self- reliance as a means to greater understanding. By instilling such disciplined thought processes within the class structure, professors set the students up to succeed beyond the coursework.

Factual knowledge is important as a foundation of packaging science. Ensuring our students master the basic concepts of the science is our primary goal. But when we convey a new topic and facts to the students, we should also highlight the rational behind the knowledge. The student can absorb and relate the information more easily when it is communicated within a meaningful context.

In the first lecture of my Engineering Design Graphics class, I emphasize the importance of mastering a process to design a new package. Students have to remember the process. The steps and details to designing a new package will be much easier once the process is routine to the student. In Packaging Materials I, the students are taught the basics of plastic materials. However, only knowing the materials is not sufficient to create a successful package. Students are taught to see that it is more important to create a combination of plastics in packaging to protect the product, such as food.

I utilize active learning to achieve this philosophy. The individual and group quizzes are designed not only for memorization, but also to encourage the thinking process. For every in class assignment, the students are asked to spend 3-4 minutes thinking through the problem individually and then discuss with a partner on how to solve the problem. These small assignments initially force the student to build their own conclusions, as well as, challenge the student to communicate clearly with their peers. This internal resolve and external explanation reinforces the information taught by the professor.

The Engineering Design Graphics course outline is arranged as a process. The course project is introduced to the students at an early stage within the course outline. The coinciding course outline with the design process reinforces the idea of a process to achieve a goal. The course starts with defining the problem, then progresses to sketch, to preliminary design, and finally, to rapid prototyping. By the end of the course/ design process, students will have a strong grounding in the factual knowledge and skills learned from each class plus their applicability outside the course.

How to structure our curriculum and course in such a way to achieve a self-learning goal? This is my project:

Course Design Matrix: An innovative approach to develop and evaluate a course based on taxonomy of significant learning.