

Years ago one of my students wrote about her lives prior to her study at my school Virginia Tech. She is from a small town in North Carolina, a place she described where everyone knows each other's business and always has opinions about other people's life. A belief entrenched in her hometown is that "if you do not leave when it is time for college, then you will never get out of here." She therefore wished hard to enter a four-year college right out of high school. It is not that staying at a small town should be deemed less-privileged, but college education could really transform a student's life in terms of geographical and career mobility. Therefore, the central goal of my teaching is to benefit a student holistically beyond academic credentials in the long run. This goal can be fulfilled in the following two components of my teaching philosophy.

First and foremost, I always try to make my course content relevant to students' past experiences and everyday life. As an instructor from the humanities who teaches general education courses for students mainly of engineering majors, I am aware that I have both the privilege and responsibility to deliver non-technical knowledge that is equally important as technical knowledge students learn from the engineering curriculum. Back in 1956, the report of the American Society for Engineering Education (ASEE) found a national-wide, unanimous agreement that engineering students would benefit from knowledge in the humanities and social sciences. But students in engineering sometimes feel that the general education they receive bears a resemblance of high culture and does not speak to their often middle-class upbringing and engineering identity. They feel under-motivated, and many students take general education courses just to meet school requirements.

To address this issue, I always structure my course in a way that is relevant to my students' backgrounds and experiences. Students usually learn better when course content and instructions properly address their prior knowledge. The first assignment in the classes I teach is designed to elicit and assess such prior knowledge, and my expectations, instructions and course structures will adjust accordingly. Another way to keep students motivated is to incorporate history of their disciplines or the regions they are from into course units. Knowledge about the demographics of my students also plays an important part. For example, because I know that most of my students at Virginia Tech are from Virginia, an article like "Turnpike Construction in Antebellum Virginia" will easily appeal to most of my engineering students and enhance their personal ties to course materials.

My second component of teaching philosophy is to bridge theories with practice, make my pedagogy visible, and tell students explicitly how this course will be potentially useful for their current life and future careers. I personally call this strategy the integrated part of the curriculum in general education. In engineering education, there have been calls for implementing first-year engineering design courses with components of problem-based learning (PBL) that help narrow the conceptual gap between fundamental engineering science courses and application-based design courses, teach the applicability of engineering theories, and inform students what real-world engineering practice is like. Evidence has shown that developments of engineering expertise and identity of students who receive the treatment are significantly better than those of their counterparts who do not have similar exposure. There are, however, fewer instructors in the humanities undertaking similar initiatives. After all, unlike engineering which has been referred to as “useful arts” right in the beginning of its modern history, knowledge in the academic humanities is mostly not intended for immediate application.

Drawing from ideas in the recent movements in engineering education to close the gap between theories and practice, my general education courses involve many instructions in which I emphasize the usefulness of course material with respect to students’ current life and career. Just like engineering students who study fundamental engineering science alone might have lower motivations for learning because they do not have a clear idea of how the knowledge could be useful, students taking general education courses can be lost in the same way. This is not to say that professors in engineering education do not understand the side of application, but generally it does not come to their attention that learning about the intention and pedagogy behind course design is important to student motivations. Making my pedagogy and the purpose of course design explicit and visible to students taking my general education courses is therefore a crucial part of my teaching and instructions.

In conclusion, my top concern in higher education is to make my teaching touch a student’s life, not merely his or her studies and academic performance. In structuring the course content in a way relevant to their life and making the usefulness of course materials apparent and visible, I am empowering my students with knowledge from the humanities. In this way, I am also engaging with my students to transform their lives – a significant influence that I strongly believe will live on even after college.