

Teaching Philosophy

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My teaching philosophy may be described best this way: I set very high standards and then do my utmost to provide my students with a large variety of tools they can use to assist them in reaching those standards. I want to have my students learn more than they thought they were ever capable of learning, and I want to make the journey more enjoyable and fulfilling than they thought was ever possible. I have my work cut out for me for several reasons, not the least of which is that this magic is all supposed to unfold in, of all subjects, a calculus course – or two.

How to achieve these goals differs from section to section and day to day. It depends on the mood of the class each morning and on the personality of the class in general. However, my students know from the very first day that they will be doing a lot of work, and that they will come to anticipate and even enjoy the two hours of homework that will be expected of them nearly each evening. They know that I am expecting them to derive great satisfaction and pleasure from successfully navigating a complex problem all the way to the correct solution. They hear me say that by the time they finish with the spring course, they will be disappointed if their final exam does not challenge them enough with their favorite types of hard problems. They know that we are not working toward grades, but instead are striving for mastery of the material since they will all be applying the calculus they learn in my classes to their future courses and in their chosen careers. They also know that I am behind them supporting their endeavors and beside them encouraging their efforts every step of the way. I often feel like a proud parent teaching my child how to ride a two-wheeler; the success is all theirs, but I helped.

Since my intention is to turn our classroom into a learning community, I want every student to feel like he or she is a stakeholder in the class. Before students can open themselves up to learning, they need to feel at ease. I strive to make each student feel welcome and safe in class. Mistakes happen when doing math, and if a student feels like those mistakes are part of the learning experience and not an event to feel embarrassed about, then he or she should be more willing to stretch or to try something new. Learning math is not a competitive sport, so asking questions and being willing to work with me in class is essential. An animated classroom with lots of suggested methods and answers allows us to explore alternate strategies and correct solutions with no hurt feelings.

The best way to master calculus is to participate in a small study-buddy group. As students transition away from the high school model to the university model, they discover that more and more learning has become their responsibility. The idea of being an active learner is new to many of them, so I encourage students to get to know their classmates and to begin to depend on each other. With some urging from me, a few study-buddy groups will start to form by the third week of fall semester. These groups can become quite robust; most will last until at least the end of spring and will expand to include other shared courses as well as calculus. I also expect my students to come to class ready to discuss challenging homework problems with those who sit nearby. By the time I arrive, several lively discussions are usually taking place. In those debates is where some serious learning occurs, so if they are deep into comparing strategies and arguing the merits of different techniques or solutions I will often allow those conversations to continue as I move around the room redirecting the focus if needed.

I encourage my students to get involved in many different extracurricular activities and then report back to us. I am so certain it enhances their college experience, their personal wellbeing, and their overall knowledge that I have students come in in the fall to give five-minute “recruiting pitches” to my new freshmen. My students have been recruited by members of the sailplane club; fuel cell club; concrete canoe club; various car building teams; juggling club; urban gaming club; thon support teams; witches and wiccans club; thespians, for both performance and tech support roles; club sports teams; singing groups; and the like. All recruiters have been former students of mine, so my current students see that a high level of involvement is possible and is actually advantageous. Many ask questions of the recruiters and get involved immediately. I also urge my freshmen to attend Fall Career Days. When some of them return to class with tales of interviews and internship offers, the others see how possible it is despite their lack of experience. It encourages many more to attend the next job fair.

My overarching philosophy is to try to reach the whole student. The most successful freshmen get involved in campus life and actively pursue learning in a supportive and encouraging environment.