

Sample Statement of Teaching Philosophy

Used with permission from the author.

Dr. Geoffrey Rayner-Canham

Professor of Chemistry, Division of Science, Sir Wilfred Grenfell College

Preamble

As a teaching professor, I do not believe my task is to teach: my duty and pleasure is to inspire my students. Inspiration is a multi-faceted concept. It involves making the context of the subject interesting and relevant to the students so that they will revel in learning even when plowing through derivations and calculations. It involves challenging students to excel while making sure that those struggling have the support and encouragement that they need. But in turn, it is the students who inspire me. It is a symbiotic relationship between the learned and the learner.

My teaching goals are dual: To inspire students to do their best and to cause them to develop a curiosity about the world in molecular terms. My approach to teaching is three-fold and is lodged in the three E's: excitement, expectations and environment.



Excitement

Science is so intriguing! The key point is to convey the thrill – I want to ‘turn students on’ to science. It’s not always ‘fun’ – it can be intellectually challenging – but it can be made stimulating. If I’m enthusiastic, then there is the possibility my students will come to share that excitement.

Chemistry is not words and symbols on a chalk board, it is seeing chemistry and doing chemistry. The world around us is chemical and we, ourselves, are constructed of chemicals. It is this integration of chemistry and life that I seek to communicate to my students. Teaching chemistry provides a unique opportunity to weave historical and contemporary science together; it has the capacity of stirring human interest and creating social context.

Unless one has a genuine interest in, and enthusiasm for the subject one teaches, one can never become an inspiring teacher. It is not just the ‘high flyers’ or the so-called ‘nerd scientist’ types whom I want to ‘turn on’ to chemistry. My goal is for every one of my students to depart after class, thinking about some way in which chemistry interests them, whether it is the importance of zinc as an element in their diets or the dangers of indoor air pollution. My challenge as a teacher is to make my classes as engaging and relevant to my students’ lives as possible. In fact,

the relevance of course content has been one of my prime interests over the last 30 years and assisting my students to examine popular literature critically has been one of my goals. I contend that it is vital for students to have an awareness of science in a societal context if they are to be the next generation of consumers and, possibly the next generation of public officials and policy makers who make decisions that depend upon scientific information.

While the classroom provides an opportunity for seeing, it is the laboratory that provides an opportunity for doing. Experiments and procedures can become 'fossilized,' with many current lab manuals looking almost identical to those of 50 years ago. In my view, it is essential to ensure that the laboratory experimentation is relevant to the course and that the work is performed with up-to-date methodology. I believe that I have a responsibility to continually develop new experiments and to introduce innovative means of performing the experimentation.

Expectations

I make it clear to my students from the first day of the course that I expect them to strive for excellence – 'almost right' is not good enough. Through example and case study, I point out that they are planning a career in the sciences where a one-letter error in a pharmaceutical name in pharmacy, nursing or medicine could kill someone, while a 'minor' error in a calculation in engineering or environmental science could be equally life-threatening. Provided that the benchmarks are reasonable and attainable, my experience has been that students will embrace the challenge.

Though I am proud of the accomplishments of all my students, I think many of my scientifically-gifted students might have performed just as well by self-study (though I would have missed their challenging questions in class). It is probably for this reason that I have a particular joy in helping the C and low B achieving students blossom and flourish and hopefully become strong, confident B+ and A students.

Environment

Creating a positive learning environment is the most important aspect of teaching. The environment is multi-dimensional, extending beyond the classroom or laboratory to the external learning spaces of my office or to a chance meeting in the corridor. Professional accessibility and approachability are intrinsic to the creation of an environment which communicates care and concern to my students.

I try to create a relaxed atmosphere in the classroom so that even the shyest student feels comfortable enough to ask a question. Students in my classes are encouraged to ask questions and they feel reassured that they will never be made to feel inadequate by asking. I firmly believe that my task is to maintain very high academic standards and then offer students the assistance they need to attain them.

While teacher-student interactions both in the classroom and the laboratory are important, I regard accessibility outside the classroom as essential. I practice an open door policy – if I'm in my office, any student or cluster of students is welcome to drop by. I contend that part of my duty at Sir Wilfred Grenfell College is to provide advice and assistance to my students in any way that I can. And if their problems are outside my expertise, to link them to whomever is best able to help them.

Making a Difference

Back in the 1930s at Cambridge University, one academic observed to another that the biochemist F. Gowland Hopkins always had the brightest and best students in his research group. The other academic responded that this view was incorrect: Hopkins had acquired ordinary students. It was Hopkins' ability to turn "geese into swans through the hormone of encouragement" that had made the difference. It has been, and continues to be my aim, to transform as many geese into swans as are willing to take the challenge.