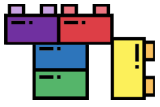


Sample Statement of Teaching Philosophy: Engineering

As a PhD Candidate, my philosophy to education is founded on what I value as a learner, and inspired by the experiences I have with my favourite professors. As a Graduate Teaching Assistant, my approach to teaching is shaped by the interactions with my students and my growing teaching responsibilities over the years. To me, I believe **academic excellence, passion, clarity, diversity, and responsibility** together are what make an outstanding educator. Parallel to these is the idea of **integration between theory and practical applications** which I consider to be the key fundamental for engineering education.

I believe **academic excellence** is one of the most important aspects of an outstanding educator, especially at the University-level. This means having a comprehensive understanding of the subject matter being presented, through continuous engagement in the state-of-the-art education and/or research in the discipline. I strive for continuous development of my own knowledge in the field of my research and in the subject that I teach, which, from an educator's perspective, enables me to educate and inspire students with the most up-to-date knowledge. Also, I believe it is vital to have a strong base of knowledge for the materials covered in each tutorial or class that I teach, and to always be well-prepared and organized by 1) reviewing materials from previous years and updating them with current practices; 2) reading extra background materials to complement teaching materials; and 3) creating handouts with talking points and detailed schedule to keep on track during each session. Academic excellence and well-prepared and organized sessions bring confidence in teaching and in responding to challenging questions from students.

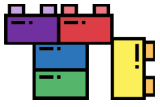
I believe **passion** for the subject and for teaching are the qualities of an outstanding educator that motivate and inspire students to learn. Speaking of my personal experience, the decision of devoting my lifelong study to earthquake engineering was largely motivated by the passion that my graduate supervisor passed on to me as a student of his undergraduate course. That is the type of educator I strive to become, whose enthusiasms for the subject and teaching are evident, and even contagious. In addition, I believe that for students to be engaged and motivated, it is important for an educator to actively inspire them to develop a passion for the subject. I approach this by clearly demonstrating to students **how theory and practical applications integrated**. I share with students the relevance and importance of the course content to their future careers using real-world examples. I lead course projects that are designed to integrate the majority of the course concepts into design projects that resemble current practices within engineering firms in which students work in groups and apply the knowledge learned into designing buildings. Throughout the course projects, I also emphasize the development of critical skills for their future careers such as scientific writing, presentation, and collaboration. I believe students develop deeper understandings of the course material and acquire valuable skills by enabling them to make connections to the real world and engaging with current practices in a way that allows them to appreciate the relevance of the course material.



I believe **clarity** of expression is the foundation and an indispensable part of effective education. This includes not only clear and well-organized teaching and explanations of course contents, but also clear communication of the requirements and expectations to students. For each of the learning tasks or examples, my main approach is to: 1) start with presenting clear objectives to ensure students understand what the problem is to be solved and what is being asked of them; 2) list down all the main steps that are required, explain them to students in a logical order, and reference them throughout the teaching process; and 3) conclude with a recapitulation of objectives and main steps. In terms of assessments, I aim for clarity and transparency whereby detailed rubrics are always discussed, and examples are presented to the students so that they are aware of the learning objectives and outcomes that form the basis of each assessment. I believe in ongoing practice and feedback in and beyond the classroom, for example through weekly practice sessions and group meetings, short weekly progress reports, and intermediate submissions for the course projects, whereby I can be clearly aware of the performance of the class, provide personalized advice to students and modify each session to address common challenges and promote a better understanding by the students—through these I ensure students get sufficient and continuous support and feedback to be motivated to learn and to achieve success.

I believe **diversity** is imperative for effective teaching and learning. Students come with different backgrounds—many of them will learn in different manners and at different paces. To facilitate active learning among all students, I use different teaching strategies and adjust teaching focuses by listening to their needs and determining their strengths and areas of improvements. I believe in incorporating new technologies into traditional classrooms by developing interactive course concept maps, collecting, and making videos on concepts and experiments, creating 3D models that students can interact with, and producing asynchronous lectures where students can access at any time and learn at their own paces. A discussion forum is also used for students to post questions, get responses, and be able to look at questions from other students and even peer-teaching others with reviews by the teaching team. I also believe in promoting a diverse learning environment by leading the project sessions and tutorials with large-group, small-group, and individual discussions, and getting to know each student's background and motivations through meetings and assistance during office hours. I am also committed to the ongoing development of my teaching skills to stay competent and up to date with current teaching practices, such as working with the instructor to develop a framework to reconstruct engineering courses into online teaching, and participating in teaching training programs to explore and learn new teaching theories and methodologies.

I believe **responsibility** drives teachers and learners to work toward excellence. I believe that the classroom is a critical part of promoting solid professional practices and social responsibility: to ensure solid understandings of concepts and applications covered in classes, develop strong engineering intuition, and establish professional ethics and standards. When I go through examples and design assignments, students need to demonstrate their understanding of the concepts behind each question and also the fundamentals behind each equation they use, instead of merely knowing how to use them. I help students develop engineering intuition by using pictures, physical examples, analogies and simple models to describe complex



problems. Moreover, I strive to facilitate the establishment of responsibility for the engineering profession. “Earthquakes do not kill, poorly designed structures do”—this quote reminds me how important structure engineering is, shapes my attitudes toward teaching and learning in this field, and is what I like to share with the students, that what we do is life-dependent, and we need to learn to accept responsibility for the quality of our work and understand the impact it may have on others and the society.

I would like to conclude with a quote: “If you would thoroughly know anything, teach it to others. One who ceases to learn cannot adequately teach” (Tryon Edwards 1809–1894). I believe life is a journey of learning and that teaching is one of the best learning experiences. Teaching is challenging but also very rewarding—I appreciate every opportunity that I have to interact with students and learners in general, as their questions and curiosity inspire me and encourage me to truly comprehend my understandings through the process of teaching and learning. I will continuously motivate and challenge myself to grow and develop both my technical background and teaching skills and I look forward to the journey ahead as an educator.



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