# TEACHING PHILOSOPHY STATEMENT

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My curriculum development experience builds up my philosophy regarding the goals of student learning. My 8+ years of teaching various Computer Science courses allow me to develop a set of methods to enact and assess these learning goals. Also, my international education background (I am a Vietnamese who studied my Bachelor in Indonesia, had my Master in Italy, and is taking my Ph.D. in the United States) and my experience in teaching students from different countries, in my previous institution, raise my appreciation for the cultural diversity and the importance of creating an inclusive learning environment for the students.

I led a team to develop the curriculum for the first two years (the last two years are from our collaborator) of the Bachelor of Science in Computing for the collaboration program between FPT University (Hanoi, Vietnam) and the University of Greenwich (London, UK). This experience allows me to identify the **goals of student learning**. Specifically, subjects in Computer Science should have all or some of the following goals:

- become proficient in the use of tools and programming languages related to the subject
- can formulate problem statements and build algorithms to solve such problems
- have a balance between the practical and theoretical experience with the subject
- the ability to conduct research and complete projects
- the competency in working in a team to complete group projects
- the ability to successfully report the learning results to the public (i.e., presentation and writing skills)

My experience as a graduate student also suggests having the following learning goals for the graduate students (besides the above-listed items). They should:

- be able to search and critically read state-of-the-art related materials from the literature
- can identify and implement novel ideas that can fill the gap in the current literature
- the ability to write publications to report the results to the public
- knowing the popular conferences/journals that are most appropriate for the learning subject and their corresponding requirements regarding novelty for a publishable article
- have the confidence in presenting works to different audience types.

I have more than eight years of teaching experience with various courses in Computer Sciences from programming languages (e.g., C, Java, C#, PyThon), data structures and algorithms, web and web application development (e.g., HTML, JavaScript, CSS, PHP, ASP.NET), database concepts and design, to mobile application developments (e.g., Android, PhoneGap). My past teaching experience allows me to builds up a set of methods for **enactment and assessment of learning goals** listed in the previous section. The first philosophy is to "divide and conquer."Before teaching any lecture, I will carefully prepare and divide subject knowledge into small chunks so that students can absorb each part within 10 to a maximum of 15 minutes (i.e., the period that an average student can stay focus). There should be a logical sequence for the transition between these chunks. Always stop and make sure students understand the previous steps before moving on to the next one. The second tip is that when teaching programming courses, whenever possible, there should be a live coding demo in the class. This live teaching demo may take time to prepare and consume some class time, but it allows the students to have real insights about how the programming language works right in the class. These two tips landed me my first teaching job as a junior lecturer from President University, Indonesia. The Vice President of Academics observed my teaching styles during my tutorial session for other students in my class and offered me the position right after graduation.

Next are my points of view of a good lecturer: punctuality, skills to transfer knowledge, coverage of the topics required by the syllabus, off-class availability, and ability to handle questions. First, it is obvious that the lecturer must be punctual. Next, whenever possible, I use concrete examples

or visualizations to illustrate and simplify abstract concepts. These should be combined with other teaching aids, such as the boards, instead of sticking with the slides. My strength is about "question/answering,"offering the students opportunities to ask questions fosters an interactive and active learning environment. I always make sure to make myself available for students to ask questions or ask the students questions to assure their thorough understanding of the current topic before moving to the next ones.

The points of view listed in the previous section awarded me with an overall student evaluation of 3.9/4.0 for the eight years of teaching as a lecturer at FPT University, Hanoi, Vietnam. However, while teaching, it is critical to observe the students' abilities to grasp the subject knowledge. Therefore, I also have a reflection on the student results. Specifically, it's always harder to transfer the subject knowledge to the (25%) less capable students of the class. My tips and tricks listed in the previous section help to make the subject class easy for these students but at the same time might make the subject less challenging for the other (25%) more capable students in the same class. These less challenging classes can even make smarter students lazy. Therefore, there should be pointers to further readings and projects for these upper-class students. These further points to materials help them gain critical thinking and the ability to grasp the knowledge from a higher level of abstraction (e.g., read research papers and listen in conferences). Furthermore, whenever possible, I will use my research activities to complement my teaching and let my students get involved in my lab.

As discussed, it is crucial to assess students' learning progressions to adapt the teaching methods accordingly. Therefore, I will divide the assessments into smaller parts (preferably ten parts per course, each is 10% worth of the final grade). Besides adapting teaching methods, short reviews act as early warnings for those who do not perform up to the required standard. I had a failing experience regarding a subject with only three assessments. It was one of the first courses that I taught. Some of the students committed plagiarism and failed the first one out of three assessments. Failing one-third of the overall grades did not allow them to make up for the final grade. Consequently, those students dropped or stopped joining the class. Therefore, dividing assessments into smaller parts will enable students to perceive expectations from the course and work up to the progress whenever there is still a chance. Notably, though assessments are divided into smaller parts, they should be finally combined into one and make the whole class's final big project. Otherwise, the assessments will fail to give the students a rounded knowledge of the subject. Furthermore, several parts of the assessment strategy should be done in groups, and it is preferable to have groups with students from different backgrounds.

I was fortunate to have an international education background with my Bachelor's degree, Master's Degree, and Ph.D. from different countries, which are also different from my country of citizenship. Furthermore, I was teaching in the international collaboration program, from FPT University, with students from different countries worldwide, such as Vietnam, Nigeria, Ghana, England, South Africa, and Bangladesh. Therefore, I am committed to fostering the **inclusive learning environment** through appreciating cultural uniqueness, welcoming different perspectives, and promoting collaborative alignment of teams with diversity. My experience confirmed the benefits of diversity for advancing student learning and development. The most successful teams in my classes were those with students coming from different countries of origin. This diversity allows students to learn and complement one another for success. For instance, the Vietnamese students can learn from international students: English, communication skills, and the confidence to interact with the lecturers. On the other hand, international students can learn programming and mathematical skills from Vietnamese students. Furthermore, team cultural diversity allows the students to create a global network, which is very useful for their future careers.

In summary, my curriculum development experience allows me to identify and set student learning goals. My teaching experience equips me with a set of methods for enactment and assessment of these learning goals. Furthermore, my educational background and my teaching experience in an international collaboration program allow me to appreciate the importance of an inclusive learning environment. Also, I love teaching and would like to learn and add more to my experience in my future endeavor to effectively educate students with knowledge, skills, and attitudes ready for the future workforce.