## Teaching Philosophy Dr. Nadine Aburumman, Department of Computer Science

My main objective as educator in Higher Education (HE) is revolving around lifelong and experiential learning. By "learning", I mean enable student to develop a critical thinking about a topic: rather than passively receiving and absorbing information, learning also includes developing the ability to meaningfully interconnect theory and practice. Learning thus means to become critical and creative, with capacity to go beyond the classroom [Knapper and Cropley, 2000]. Bloom's Taxonomy [Adams, 2015] [K2,K3,V3] emphasizes that students learn better by experiencing what they learn, and gain a deeper understanding if they are exposed to problems that are relevant in practice. I deeply believe that encouraging critical thinking in the classroom is important in creating long-lasting effects on learning and helps merge theoretical principles and technical knowledge [Egan, 2019]. To achieve this, I apply a combination of teaching techniques in order to help students develop skills they need in real-world problems, provide an environment that challenges the students and allows them to grow intellectually, and seek ways to encourage passion.

The Computer Science programmes receive international recognition and attract national and international students with very diverse backgrounds, with different expectations, and most importantly different educational backgrounds. For example, some students come to university with a solid background in linear algebra from high school, while others have never been introduced to linear algebra. My challenge as a lecturer who teaches computer games, which is a subject requiring a deep understanding of many aspects of mathematics, is to include the latter challenging yet basic material effectively in my teaching. Simultaneously, I need to provide a useful and interesting learning experience to students already familiar with the necessary mathematics, to accommodate every student's background. My objective is to meet all students' expectations and maximise the degree to which the learning outcomes are met. Therefore, my ultimate goal is for my students to learn [Moon, 2004, p11]. This is achieved through teaching strongly interrelated theoretical and applied work, using appropriate constructivist approaches that engage students in active learning [K2] [Biggs and Tang 2011, p22].

I am actively seeking to make my classes approachable, challenging, and interesting, where I adapt the difficulty to support individual learners' needs, and to provide equal opportunities to all students [K1, K4, V1, V2]. My strategy is to have a mix of interactive lectures, regular laboratory sessions, quizzes, student-led discussions, and project-driven work, which helps students to learn experientially [Strobel and van Barneveld, 2009]. During the laboratory sessions, I informally evaluate the effectiveness of my teaching by observing students' performances [K2, K5, V2]. Furthermore, I embrace technologies such as Blackboard Learn, which facilitates discussion and collaboration. I maintain an open channel of communication and hold weekly office hours, where the students can approach me and discuss their concerns. I always assure students that there is no challenge that cannot be discussed.

To summarize, I adopt teaching techniques that stimulate involvement, and promote active learning. I seek to develop and use diverse teaching strategies in HE [K2, V1, V4]. I continuously reflect on my practice, where I ensure my practices' compliance with the UK Quality Code for Higher Education [K6].

## References

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