



Newsletter from DQAC

Dear Colleagues

In this issue, the Departmental Quality Assurance Committee (DQAC) invited Dr Simon Hau and Prof. Kenneth Lam to shed some light on their good teaching and learning practices. After listening to their sharing, we believed that their experience could be shared with our colleagues and so we are sending this newsletter to you.

Simon taught “ENG307 Society and the Engineer” in 2011/12 Semester 2 and “EIE528 Digital Data Transmission” in 2011/12 Semester 1. ENG307 is a non-conventional engineering subject which requires students to form groups of 4-5 people and study cases from the perspectives of eight dimensions in engineering setting throughout the course. Each group will take turn to present an engineering case from a selected perspective while other students have to attentively listen to the group’s presentation in order to submit a weekly report which comments on the reasoning and arguments put forward by the presentation group. Most students found such coursework requirements challenging but at the same time instructive. They were able to learn from each other.

At the end of the course, Simon received a letter of gratitude from a student who had attended his class of ENG307 thanking him for being meticulous and instructive in teaching which helped built up a bridge between engineers and the society within the students’ hearts. The student mentioned that “we pay attention, for the first time, to the others’ critical but too often neglected aspects of an engineer”, “got new insights every time I listened to the presentation performed by our peers in each lesson”, and “feel my growth and please accept my sincere gratitude for your inspiring teaching”.

For EIE528, Simon handed out lecture notes to students at the beginning of the classes. During lessons, he did not dwell on the details of the notes, such as the equations of the subject matter. Instead, he picked out some essential concepts and theories and explained them to the students by citing real-life examples and applications. He also asked students to answer questions during each lesson to make sure that they really understood the concepts and theories.

Kenneth taught “EIE312 Linear Systems” in 2011/12 Semester 2. He had been teaching this subject for many years and so he had been acquainted with the kind of questions which most students would encounter in the course and was able to adjust his teaching methodologies based on this experience. Despite his familiarity with the problems that most students would come across in the course, he was still amazed and inspired by the new issues raised by some students each year when he taught the course.

Recognizing that learning the concepts, theories and equations of the subject could be boring to students, Kenneth gave examples of real-life applications to facilitate students’ understanding of the meaning behind the theories and equations. He would also produce flash animations to aid students grasp the abstract concepts. Matlab was used during the lab sessions to demonstrate results and verify if ideas worked. Although EIE312 can be a difficult subject which required students to spend more time and effort on understanding the concepts and theories, students usually felt a sense of achievement when they could get hold of the subject matters at the end of the course.

From Simon’s and Kenneth’s experience, we found that the following might have contributed to the positive feedback from students:

- (i) learning and teaching approaches as well as methods of assessments should be carefully designed when teaching non-conventional engineering subject;
- (ii) hand out lecture notes to students at the beginning of the classes and only explain some essential concepts and theories by citing real-life examples and applications during classes;
- (iii) ask students to answer questions during each lesson to make sure that they really understand the concepts and theories;
- (iv) explain concepts, theories and equations with real-life applications to facilitate students’ understanding of the meaning behind the theories and equations; and
- (v) produce flash animations to aid students grasp the abstract concepts.

Teaching is a form of **nurturing**





The DQAC will continue to identify good learning and teaching practices for sharing. If you have any teaching practices and experience that you want to share with colleagues, you are welcome to send us your views anytime.

**Departmental Quality Assurance Committee
Department of Electronic and Information Engineering**