



Course Description

course will give students hands-on experience in developing interesting Android applications. No previous experience in programming is needed, and the course is suitable for students with any level of computing experience. The MIT App Inventor will be used in the course. It is a blocks-based programming tool that allows everyone, even novices, to start programming and build fully functional apps for Android devices. Students are encouraged to bring their own Android devices for hands-on testing and exploitation

Topics

To engage students' interest in the course content, flipped classroom approach will be used in the course. Students will acquire basic programming skills through different hands-on in-class activities. The lectures and labs will prepare them for the final capstone project. Students will demonstrate their Android applications to the class on the last day.

- Introduction to MIT App Inventor
- Programming Basics
- TimePicker, Clock and Sound Components
- Canvas Component for Drawing
- Vibration and Sensor Components
- Internet and Location-Based Services
- Mobile Game Development

Grading Scheme

- Attendance of lectures and labs (20%)
- Quizzes (15%)
- In-class exercises (25%)
- Group Project (40%)

[Topics and grading schemes are subject to change as deemed appropriate. Students will receive information and guidelines in class on how they will be assessed for the course.]

Teaching Mode

The course will be delivered face-to-face.

Attendance Requirement

Attendance is expected and required. The minimum attendance required is 70%. Attendance for the assessment activities [e.g. group presentation and final exam] is mandatory.

Instructor(s) Profile

Prof. Kenneth LEUNG

Prof. Leung is an Assistant Professor of Engineering Education in the Department of Computer Science and Engineering at HKUST. After receiving his Computer Science degree at the University of British Columbia, he has further pursued his Master's and Ph.D. studies in Computer Science and Engineering at HKUST. He has been teaching a variety of computer science courses at all levels. Kenneth is passionate about teaching. He leads various teaching development projects, and uses different learning and pedagogical approaches, including active learning, experiential learning, gamification, and e-learning to stimulate critical and creative thinking in his classes. He has received numerous positive comments about his teaching style and skills in his teaching evaluations. He has also received the Best Teaching Award in the Master of Science Program in Information Technology.