Department of Civil and Environmental Engineering, HKUST
CIVL 1100 Discovering Civil and Environmental Engineering
Spring 2017

Instructors: Professor J S Kuang, Course Coordinator
Professor Irene Lo, Professor Limin Zhang

TAs [@connect.ust.hk]: Daisy Wang, TA Coordinator for the course
Part I: Civil and structural engineering
   Daisy Wang (xwangai), Sri Mogili (smogili)
Part II: Environmental engineering
   Barry Wu (barry.wu), Dennis Lam (dennis.lam)
Part III: Geotechnical engineering
   Ping Shen (pshen), Laura Chen (cchenaj)

Lecture: Tue 11.30-13.20 LTC
Lab sessions: LA1 – Wed 10.30-13.20; LA2 – Wed 15.00-17.50 CYT1002
Website: https://canvas.ust.hk/

Course description
An overview of civil and environmental engineering, infrastructure development and engineering ethics is provided. The course includes lectures and laboratory sessions, where laboratory sessions are primarily directed to students who require the development of feasible conceptual solutions for the analysis and design of the basic problems in structural, environmental and geotechnical engineering.

Course outline

Part I: Civil and Structural Engineering
1. Civil engineering and society (07 Feb) JSK
2. 2.1 Engineering Hong Kong’s infrastructure development (14 Feb) JSK
   2.2 Statics – forces, moments and equilibrium
3. 3.1 History of civil engineering and contemporary wonders (21 Feb) JSK
   3.2 Structural analysis – trusses and three-hinged arches
4. Becoming a civil engineer (28 Feb) JSK

Part II: Environmental Engineering
5. An overview of environmental engineering (07 Mar) IL
6. Land decontamination and solid waste disposal (14 Mar) IL
7. Water pollution control (21 Mar) IL
8. Noise and air pollution control (28 Mar) IL

Part III: Geotechnical Engineering
9. Engineering geology (11 April) LZ
10. Foundations for high-rise buildings (25 April) LZ
11. Landslide hazards and prevention (02 May) LZ
12. Underground constructions and land reclamation (09 May) LZ

Course grade and requirements
1. Assignments: 24%; lab reports: 24%; final examination: 52%.
2. Assignments and lab reports are due one week after they are assigned. Late submissions are generally not accepted.
3. Failure to attend lab sessions and to take the final examination may result in a failing grade of the course.