

Department of Civil and Environmental Engineering, HKUST
CIVL 1100 Discovering Civil and Environmental Engineering
 Spring 2025

Instructors : Professor Kit Ming Lam (Part I: Civil and structural engineering)
 Professor Dan Tsang (Part II: Environmental engineering)
 Professor Anthony Leung Course Coordinator
 (Part III: Geotechnical engineering)

TAs [@connect.ust.hk] :

Part I: RAGAVAN, Prasanna, YAU, Ho Sing, **YU Chenghao (cyuaw)**, PANG, Yuanen

Part II: FU Wenxin, XU Weijian, ZHANG Jin, **MAN Hoi Kit (hkjman)**, DONG Taoran, ZHANG Yu

Part III: WANG, Yuhong, KUAI, Qi, XIAN, Jiantang, **LI, Ruidong (rlibr)**

Lecture : Wed 09.00-10.50 LTD

Lab sessions : Details to be released by respective instructors Rm 2209

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

	Lecturer
Part I: Civil and Structural Engineering	
1. Civil engineering and society (5 Feb)	KML
2. Forces, moments, and equilibrium (12 Feb)	KML
3. 3.1 Loads on building structures (19 Feb)	-
3.2 Trusses and three-hinged arches (19 Feb)	KML
4. 4.1 Brief history of civil engineering and infrastructure development (26 Sep)	KML
4.2 Becoming a civil engineer (26 Feb)	-
Part II: Environmental Engineering	
5. Environmental engineering and management (3 Mar)	DT
6. Land decontamination and solid waste disposal (12 Mar)	DT
7. Water pollution control: water and wastewater treatment (19 Mar)	DT
8. Noise and air pollution control (26 Mar)	DT
Part III: Geotechnical Engineering	
9. Engineering geology (9 Apr)	AL
10. Foundations for high-rise buildings (16 Apr)	AL
11. Landslide hazards and prevention (23 Apr)	AL
12. Underground constructions and land reclamation (30 Apr)	AL

Course grade and requirements

1. Assignments: 18%; lab reports (group submission): 24%; final exam: 58%
2. Assignments and lab reports are due one week after they are assigned. Late submissions are generally not accepted.