

# The Hong Kong University of Science and Technology

## UG Course Syllabus

[Course Title] Introduction to Smart City Economics

[Course Code] CIVL 4640

[No. of Credits] 3

[Prerequisites: None]

**Name:** [Sen Li]

**Email:** [cesli@ust.hk]

### Course Description

[This course will cover economic principles and tools for analyzing the emerging challenging problems in the context of Civil Engineering with a focus on smart city development. The course discusses various economic problems arising in modern power and transport systems through the lens of electric vehicles, renewable energy, mobility-on-demand services, etc. The course will complement the existing course in microeconomics by focusing on engineering applications and offering extensive practical examples within the smart city context. Through lectures and exercises, students will learn state-of-the-art models and tools to identify, formulate, and address challenging problems in smart city development].

### Assessments:

[List specific assessed tasks, exams, quizzes, their weightage]

Assessment Task	Contribution to Overall Course grade (%)
Assignment	40%
Attendance	10%
Final examination	50%

### Required Texts and Materials

[Kirschen, Daniel S., and Goran Strbac. *Fundamentals of power system economics*. John Wiley & Sons, 2018.

Stoft, Steven. *Power system economics*. Journal of Energy Literature 8: 94-99, 2002.]

### [Optional] Additional Resources

[List any additional resources, such as online platforms, library resources, etc.]