The Hong Kong University of Science and Technology

[Course Title] Fluid Mechanics

[Course Code] MECH2210 L1

[No. of Credits] 3

[Any pre-/co-requisites] MATH 2011/2023, MECH 2310

Name: [Instructor(s) Name] Prof. Zhigang Li

Email: [Your Email Address] mezli@ust.hk

Course Description

[Briefly describe the course content, key topics or themes, objectives, methods of instruction, e.g., lectures, discussions, projects].

Fundamental concepts; fluid statics; fluid kinematics, integral and differential equations of fluid flows; conservation of mass, momentum and energy; dimensional analysis; pipe flows, external flows, and nanofluidics.

Assessments:

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

Assessment Task	Contribution to Overall Course grade (%)
Homework	10%
Mid-Term	40%
Final examination	50%

Required Texts and Materials

[List required textbooks, readings, and any other materials]

1. *Fundamentals of Fluid Mechanics*, 5th or 6th edition, B.R. Munson, D.F. Young and T.H. Okiishi (Wiley and Sons, 2006/10)
2. *Mechanics of Fluids* (Cengage Learning, 2015), M.C. Potter, D.C. Wiggert, and B.H. Ramadan
3. *Nanofluidics: An Introduction*, 1st edition, Zhigang Li (CRC-Taylor & Francis, 2018)

[Optional] Additional Resources

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

Nil.