

COURSE DETAIL

PHYSICAL CHEMISTRY I: EQUILIBRIUM THERMODYNAMICS AND STATISTICAL MECHANICS

Country

Hong Kong

Host Institution

Hong Kong University of Science and Technology (HKUST)

Program(s)

Hong Kong University of Science and Technology

UCEAP Course Level

Lower Division

UCEAP Subject Area(s)

Chemistry

UCEAP Course Number

21

UCEAP Course Suffix**UCEAP Official Title**

PHYSICAL CHEMISTRY I: EQUILIBRIUM THERMODYNAMICS AND STATISTICAL MECHANICS

UCEAP Transcript Title

PHYSICAL CHEM I

UCEAP Quarter Units

4.50

UCEAP Semester Units

3.00

Course Description

The course consists of three parts. The first part covers mathematical background, multivariable calculus, and basic probability. The second part teaches equilibrium thermodynamics, covering the laws of thermodynamics and thermodynamics functions, with applications to various problems in phase equilibrium, chemical and electrochemical equilibrium. The third part teaches equilibrium statistical thermodynamics, covering the Boltzmann distribution, statistical ensembles and partition functions and their relations to thermodynamics functions.

Language(s) of Instruction

English

Host Institution Course Number

CHEM2410

Host Institution Course Title

PHYSICAL CHEMISTRY I: EQUILIBRIUM THERMODYNAMICS AND STATISTICAL MECHANICS

Host Institution Campus

HKUST, Science

Host Institution Faculty**Host Institution Degree****Host Institution Department**

Chemistry

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