

COURSE DETAIL

HEAT AND THERMODYNAMICS

Country

Hong Kong

Host Institution

University of Hong Kong

Program(s)

University of Hong Kong

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Physics

UCEAP Course Number

122

UCEAP Course Suffix**UCEAP Official Title**

HEAT AND THERMODYNAMICS

UCEAP Transcript Title

HEAT&THERMODYNAMICS

UCEAP Quarter Units

5.00

UCEAP Semester Units

3.30

Course Description

This calculus-based course covers the basics of thermodynamics and kinetic theory. Problem solving and analytical skills are extensively used and are supplemented by numerical skills occasionally. Topics include: thermodynamic system, equilibrium state and its characterization; thermodynamic state function and equation of state and state transformation; first law of thermodynamics, adiabatic process, Carnot cycle; entropy and second law of thermodynamics; various thermodynamic potentials and their applications in phase equilibrium and mixtures; third law of thermodynamics and Nernst theorem. It also includes a discussion on kinetic theory.

Language(s) of Instruction

English

Host Institution Course Number

PHYS2261

Host Institution Course Title

HEAT AND THERMODYNAMICS

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Physics

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