

# 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**

INTRODUCTORY HEAT AND THERMODYNAMICS

**Host Institution Course Details****Host Institution Campus****Host Institution Faculty****Host Institution Degree****Host Institution Department**

Physics

**Course Last Reviewed**

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