

COURSE DETAIL

THERMODYNAMICS AND STATISTICAL MECHANICS

Country

Singapore

Host Institution

National University of Singapore

Program(s)

National University of Singapore

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Physics

UCEAP Course Number

109

UCEAP Course Suffix**UCEAP Official Title**

THERMODYNAMICS AND STATISTICAL MECHANICS

UCEAP Transcript Title

THERMODYN&STAT MECH

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This course is intended for students who wish to acquire a deep understanding of systems of many particles. The course considers the fundamentals of thermodynamics and statistical mechanics and is a prerequisite to advanced statistical mechanics. It covers topics including: the laws of thermodynamics, thermodynamic functions, ideal gases, and heat engines; microcanonical ensemble, canonical ensemble, Boltzmann distribution, and partition function; and an introduction to quantum gases.

Language(s) of Instruction

English

Host Institution Course Number

PC2135

Host Institution Course Title

THERMODYNAMICS AND STATISTICAL MECHANICS

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Physics

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