

# 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 Course Details

<https://nusmods.com/courses/PC2135/thermodynamics-and-statistical-mechanics>

## Host Institution Campus

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Physics

## Course Last Reviewed

2023-2024

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