COURSE DETAIL

FRONTIERS OF PHYSICS
Country Singapore
Host Institution National University of Singapore
Program(s) National University of Singapore
UCEAP Course Level Lower Division
UCEAP Subject Area(s) Physics
UCEAP Course Number 50
UCEAP Course Suffix
UCEAP Official Title FRONTIERS OF PHYSICS
UCEAP Transcript Title FRONTIER OF PHYSICS
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course offers a thematic overview of the frontiers of physics, with a central focus on light due to its ubiquitous presence in the development of modern physics. It covers the classical wave description of light, from the history of its discovery to the basic mathematical notions, the speed of light and special relativity, as well as light's impact on the development of quantum theory, highlighting some fundamental quantum processes involving one or two photons. It also explores light-based technologies and considers the historical and philosophical context of these scientific concepts, laying a solid foundation for further study in physics.

Language(s) of Instruction
English

Host Institution Course Number
PC1101

Host Institution Course Title
FRONTIERS OF PHYSICS

Host Institution Course Details
https://nusmods.com/courses/PC1101/frontiers-of-physics

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Physics

Course Last Reviewed
2025-2026

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