

COURSE DETAIL

EINSTEIN'S UNIVERSE AND QUANTUM WEIRDNESS

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

27

UCEAP Course Suffix**UCEAP Official Title**

EINSTEIN'S UNIVERSE AND QUANTUM WEIRDNESS

UCEAP Transcript Title

EINSTEIN UNIVERSE

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This course introduces (with history & philosophy of science) two of the most important developments in modern physics: relativity and quantum theory. Topics: the concept of absolute and relative space and time, the twin paradox, black holes and wormholes, wave-particle duality of matter, Heisenberg's uncertainty principle, Schrodinger's cat, the ultimate constituents of matter, grand unification and superstrings, and how these theories can contribute to the technology of tomorrow. Concepts are emphasized, while omitting the technical details.

Language(s) of Instruction

English

Host Institution Course Number

GEH1027/GEK1508

Host Institution Course Title

EINSTEIN'S UNIVERSE AND QUANTUM WEIRDNESS

Host Institution Campus**Host Institution Faculty****Host Institution Degree****Host Institution Department**

Physics

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