

# COURSE DETAIL

## GENERAL RELATIVITY

**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**

155

**UCEAP Course Suffix****UCEAP Official Title**

GENERAL RELATIVITY

**UCEAP Transcript Title**

GENERAL RELATIVITY

**UCEAP Quarter Units**

5.00

**UCEAP Semester Units**

3.30

## Course Description

This course examines general relativity. Topics include: The principle of equivalence; inertial observers in a curved space-time; vectors and tensors; parallel transport and covariant differentiation; the Riemann tensor; the stress-energy tensor; the Einstein gravitational field equations; the Schwarzschild solution; black holes; gravitational waves detected by LIGO, and Freidmann equation.

## Language(s) of Instruction

English

## Host Institution Course Number

PHYS4654

## Host Institution Course Title

GENERAL RELATIVITY

## Host Institution Course Details

[https://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Course&course\\_code=PHYS4...](https://webapp.science.hku.hk/sr4/servlet/enquiry?Type=Course&course_code=PHYS4...)

## Host Institution Campus

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

## Course Last Reviewed

2024-2025

[Print](#)