

COURSE DETAIL

PARTIAL DIFFERENTIAL EQUATIONS

Country

Hong Kong

Host Institution

Hong Kong University of Science and Technology (HKUST)

Program(s)

Hong Kong University of Science and Technology

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mathematics

UCEAP Course Number

118

UCEAP Course Suffix**UCEAP Official Title**

PARTIAL DIFFERENTIAL EQUATIONS

UCEAP Transcript Title

PART DIFFERTL EQUAT

UCEAP Quarter Units

4.50

UCEAP Semester Units

3.00

Course Description

This course covers the derivation and analysis of fundamental partial differential equations, including Laplace's equation, the wave equation, and the diffusion equation. Emphasis is placed on analytical solution techniques such as separation of variables, Fourier series and integrals, and the method of characteristics. Additional topics include maximum principles and the use of Green's functions for solving boundary value problems.

Language(s) of Instruction

English

Host Institution Course Number

MATH4052

Host Institution Course Title

PARTIAL DIFFERENTIAL EQUATIONS

Host Institution Course Details

<https://prog-crs.hkust.edu.hk/ugcourse/2025-26/search?keyword=MATH4052>

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Mathematics

Course Last Reviewed

2025-2026

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