

COURSE DETAIL

COMPLEX VARIABLES WITH APPLICATIONS

Country

Hong Kong

Host Institution

Chinese University of Hong Kong

Program(s)

Chinese University of Hong Kong

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mathematics

UCEAP Course Number

112

UCEAP Course Suffix**UCEAP Official Title**

COMPLEX VARIABLES WITH APPLICATIONS

UCEAP Transcript Title

COMPLEX VARIABLES

UCEAP Quarter Units

4.50

UCEAP Semester Units

3.00

Course Description

This course introduces the basic properties of complex functions and analytic functions and illustrates the important use of these theories to other branches of mathematics and sciences. Topics include: complex numbers; limits, continuity and derivatives, Cauchy-Riemann equations, analytic functions; elementary functions; mapping by elementary functions; Contours integrals, Cauchy-Goursat theorem, Cauchy integral formula, Morera's theorem, maximum moduli of functions, the fundamental theorem of algebra; Taylor series and Laurent's series; residues and poles, evaluation of infinite real integrals.

Language(s) of Instruction

English

Host Institution Course Number

MATH2230

Host Institution Course Title

COMPLEX VARIABLES WITH APPLICATIONS

Host Institution Course Details

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Mathematics

Course Last Reviewed

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