

COURSE DETAIL

CHAOS AND FRACTALS

Country

United Kingdom - England

Host Institution

University of London, Queen Mary

Program(s)

University of London, Queen Mary

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mathematics

UCEAP Course Number

111

UCEAP Course Suffix**UCEAP Official Title**

CHAOS AND FRACTALS

UCEAP Transcript Title

CHAOS & FRACTALS

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This course illustrates how simple deterministic dynamical systems are capable of extremely complicated or chaotic behavior. Focus is placed on examining how to make contact with real systems by considering a number of physically motivated examples and defining some of the tools employed to study chaotic systems in practice. Discrete and continuous dynamical systems, repellers and attractors, Cantor sets, symbolic dynamics, topological conjugacy for maps, definition of chaos, fractals, iterated function systems, and Julia sets are studied in detail.

Language(s) of Instruction

English

Host Institution Course Number

MTH6107

Host Institution Course Title

CHAOS AND FRACTALS

Host Institution Course Details

<https://qmplus.qmul.ac.uk/course/view.php?id=3058>

Host Institution Campus

Queen Mary, University of London

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

School of Mathematical Sciences

Course Last Reviewed

2018-2019

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