

COURSE DETAIL

DYNAMICAL SYSTEMS

Country

Norway

Host Institution

University of Oslo

Program(s)

University of Oslo

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mathematics

UCEAP Course Number

124

UCEAP Course Suffix**UCEAP Official Title**

DYNAMICAL SYSTEMS

UCEAP Transcript Title

DYNAMICAL SYSTEMS

UCEAP Quarter Units

8.00

UCEAP Semester Units

5.30

Course Description

This course gives an introduction to the theory of systems of ordinary differential equations. This includes topics such as existence and uniqueness of solutions, linearization and stability theory, phase space techniques, bifurcation theory and Hamiltonian systems. Emphasis is put on using dynamical systems as a modeling tool in different areas of science, technology, medicine, economy. Students perform numerical studies of complex systems.

Language(s) of Instruction

English

Host Institution Course Number

MAT3440

Host Institution Course Title

DYNAMICAL SYSTEMS

Host Institution Course Details

<https://www.uio.no/studier/emner/matnat/math/MAT3440/index-eng.html>

Host Institution Campus

Host Institution Faculty

Mathematics and Natural Sciences

Host Institution Degree

Bachelor

Host Institution Department

Mathematics

Course Last Reviewed

2025-2026

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