

COURSE DETAIL

INTRODUCTION TO COMPLEX SYSTEMS

Country

Netherlands

Host Institution

Utrecht University

Program(s)

Utrecht University

UCEAP Course Level

Lower Division

UCEAP Subject Area(s)

Computer Science

UCEAP Course Number

11

UCEAP Course Suffix**UCEAP Official Title**

INTRODUCTION TO COMPLEX SYSTEMS

UCEAP Transcript Title

INTRO:COMPLEXSYSTEM

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

Complex Systems consist of many interacting constituents and their collective behavior, such as the brain, cities, climate, ecosystems, economy, and traffic. While these systems seem vastly different on first sight they share many features. To familiarize students with all properties of complex systems, this course consists of three pillars: network theory, evolution in spatially extended ecosystems, and collaboration. The course uses computer models to study conflict of interest. This course uses computer programs coded in Python, although working knowledge in Python is not a prerequisite. Each of the three parts concludes with an exam and hand-in exercises. The course concludes with a report written over a small project carried out in a group.

Language(s) of Instruction

English

Host Institution Course Number

BETA-B1CS

Host Institution Course Title

INTRODUCTION TO COMPLEX SYSTEMS

Host Institution Campus

Undergraduate School Bètawetenschappen

Host Institution Faculty

Faculty of Science

Host Institution Degree

Host Institution Department

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