

COURSE DETAIL

NETWORK DYNAMICS

Country

Sweden

Host Institution

Lund University

Program(s)

Lund University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Computer Science

UCEAP Course Number

110

UCEAP Course Suffix**UCEAP Official Title**

NETWORK DYNAMICS

UCEAP Transcript Title

NETWORK DYNAMICS

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This course focuses on common principles at the heart of the functioning of modern communication networks and shows how the same notions related to connectivity, resilience and fragility, centrality and influence arise in several different domains. It introduces mathematical tools from graph theory, random graphs, dynamical systems, optimization and game theory, and covers a wide variety of applications including: opinion dynamics and learning in social networks; economic and financial networks; communication networks and the Internet; consensus and gossiping; spread and control of epidemics; dynamics and control of transportation and power networks.

Language(s) of Instruction

English

Host Institution Course Number

FRTN30

Host Institution Course Title

NETWORK DYNAMICS

Host Institution Course Details

<https://kurser.lth.se/kursplaner/live/40/en/FRTN30/>

Host Institution Campus

Engineering

Host Institution Faculty

Host Institution Degree

Host Institution Department

Engineering- Automatic Control

Course Last Reviewed

2020-2021

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