

COURSE DETAIL

LARGE-SCALE DATA ANALYSIS

Country

Denmark

Host Institution

University of Copenhagen

Program(s)

University of Copenhagen

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Computer Science

UCEAP Course Number

141

UCEAP Course Suffix**UCEAP Official Title**

LARGE-SCALE DATA ANALYSIS

UCEAP Transcript Title

LARGE-SCALE DATA

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This course focuses on educating future data analysts. In comparison to other courses dealing with machine learning or data analysis, the focus of this course is on the peculiarities of processing large amounts of data - that is, on Big Data. The course is relevant for students from the studies of Computer Science, Cognition and IT, Bioinformatics, Physics, Statistics, and other areas of quantitative studies. The course covers a selection of the following list: fundamentals of data mining; online and large-scale machine learning; programming paradigms for large-scale data analysis; mining of streaming data; data analysis on (massively-)parallel platforms. Students obtain knowledge on: the general principles of data mining; the theoretical concepts underlying large-scale data analysis; common pitfalls in large-scale data analysis; how to apply efficient algorithms for analyzing large-scale data sets; using programming paradigms for large-scale data analysis; using software tools for large-scale data analysis; identifying and handling common pitfalls in data analysis. Prerequisites: Machine Learning or a similar course; knowledge of basic calculus and statistics is required. Participants should also have knowledge of basic programming and programming languages (in particular Python) or should be willing to spend extra study time to get familiar with the required programming skills.

Language(s) of Instruction

English

Host Institution Course Number

NDAK15018U

Host Institution Course Title

LARGE-SCALE DATA ANALYSIS

Host Institution Campus

Science

Host Institution Faculty

Host Institution Degree

Host Institution Department

