COURSE DETAIL

MATHEMATICAL STATISTICS: TIME SERIES ANALYSIS
Country Sweden
Host Institution Lund University
Program(s) Lund University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Statistics Mathematics
UCEAP Course Number 135
UCEAP Course Suffix
UCEAP Official Title MATHEMATICAL STATISTICS: TIME SERIES ANALYSIS
UCEAP Transcript Title TIME SERIES ANALYS
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

Time series analysis concerns the mathematical modeling of time-varying phenomena, e.g., ocean waves, water levels in lakes and rivers, demand for electrical power, radar signals, muscular reactions, ECG signals, or option prices at the stock market. The structure of the model is chosen both concerning the physical knowledge of the process, as well as using observed data. Central problems are the properties of different models and their prediction ability, estimation of the model parameters, and the model's ability to accurately describe the data. Consideration must be given to both the need for fast calculations and the presence of measurement errors. The course gives a comprehensive presentation of stochastic models and methods in time series analysis. Time series problems appear in many subjects and knowledge from the course is used in, i.e., automatic control, signal processing, and econometrics.

Language(s) of Instruction
English

Host Institution Course Number
MASM17/FMSN45

Host Institution Course Title
MATHEMATICAL STATISTICS: TIME SERIES ANALYSIS

Host Institution Course Details
https://www.lunduniversity.lu.se/lubas/i-uoh-lu-MASM17

Host Institution Campus
Lund

Host Institution Faculty
Science and Engineering

Host Institution Degree

Host Institution Department

Mathematics

Course Last Reviewed
2023-2024

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