

COURSE DETAIL

APPLIED DATA ANALYSIS AND VISUALISATION

Country

Netherlands

Host Institution

Utrecht University

Program(s)

Utrecht University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Statistics Computer Science

UCEAP Course Number

125

UCEAP Course Suffix**UCEAP Official Title**

APPLIED DATA ANALYSIS AND VISUALISATION

UCEAP Transcript Title

APPL DATA ANALYS VIS

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

What puts former criminals on the right track? How can we prevent heart disease? Can Twitter predict election outcomes? What does a violent brain look like? How many social classes does 21st century society have? Are hospitals spending too much on health care, or too little? Data analysis is the art and science of tackling questions like these by looking at data. Just as cartographers make maps to see what a country looks like, data analysts explore the hidden structures of data by creating informative pictures and summarizing relationships among variables. And just as doctors diagnose sick patients and advise healthy ones on how to stay healthy, data analysts predict important events and variables so we can act on this knowledge. Methods from statistics, machine learning, and data mining play an important part in this process, as well as visualizations that allow the analyst and other humans to better understand what we can conclude from the available facts. During this course, students actively learn how to apply the main statistical methods in data analysis and how to use machine learning algorithms and visualizing techniques. The course goes beyond linear and logistic regression and thus continue where “Fundamental techniques in data science with R” ended. The course has a strongly practical, hands-on focus: rather than focusing on the mathematics and background of the discussed techniques, student gain hands on experience in using them on real data during the course and interpreting the results. **Entry requirements include** at least followed an introductory statistics course of 7.5 EC, and familiarity with correlation and regression, comparing means and cross tabulations of categorical variables. It's also expected to have hands on experience in carrying out these analyses, with, for example, SPSS, Stata, R or SAS.

Language(s) of Instruction

English

Host Institution Course Number

201900027

Host Institution Course Title

ADS: APPLIED DATA ANALYSIS AND VISUALISATION

Host Institution Course Details

<https://osiris-student.uu.nl/onderwijscatalogus/extern/cursus>

Host Institution Campus

Utrecht University

Host Institution Faculty

Faculty of Social Sciences

Host Institution Degree

Host Institution Department

Course Last Reviewed

2025-2026

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