COURSE DETAIL

STATISTICS I

Country
Netherlands

Host Institution
Maastricht University – University College Maastricht

Program(s)
University College Maastricht

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Statistics Mathematics

UCEAP Course Number
100

UCEAP Course Suffix

UCEAP Official Title
STATISTICS I

UCEAP Transcript Title
STATISTICS I

UCEAP Quarter Units
6.00

UCEAP Semester Units
4.00

Course Description

This course provides a general introduction to quantitative research methods commonly used in social and life sciences. Emphasis is on methods of data collection and types of data, descriptive statistics, regression modeling, discrete and continuous random variables, and inferential statistics: the construction of confidence intervals, hypothesis testing, null and alternative hypotheses, p-values. The structure of the course is based on a new paradigm in teaching statistics: that of a simulation and randomization based approach. This instructional principle departs from the classical statistics curriculum of first covering descriptive statistics, next discuss probability theory and models of random variables, continue with sampling theory, to deal with inferential statistics only in the very end of the course. Randomization-based courses make a drastic change, and start with inferential statistics from the very beginning. Next, an important role in this course is for the student project. This project starts in the first weeks, with students working with surveys, and in doing so, collecting data on student characteristics, such as mathematical and statistical prior knowledge, meta-cognitive abilities and general study styles and habits. Students perform a statistical analysis of their own data, and after collecting the data of all students, they develop a statistical model that explains students' achievements in terms of background variables and input factors. Prerequisites for the course are a basic mathematics course.

Language(s) of Instruction

English

Host Institution Course Number

SSC2061

Host Institution Course Title

STATISTICS I

Host Institution Campus

University College Maastricht

Host Institution Faculty

Host Institution Degree

Host Institution Department
Social ScienceS

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