COURSE DETAIL

STATISTICS & PROBABILITY
Country Ireland
Host Institution University College Dublin
Program(s) University College Dublin
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Statistics
UCEAP Course Number 112
UCEAP Course Suffix
UCEAP Official Title STATISTICS & PROBABILITY
UCEAP Transcript Title STATS & PROBABILITY
UCEAP Quarter Units 5.00
UCEAP Semester Units 3.30

Course Description

This course introduces the foundational and applied concepts of probability and statistical modelling for data science in engineering. Strong emphasis is placed on using the material covered to solve engineering problems, with a focus on the R statistical computing software. The main sections of the course are descriptive statistics; laws of probability; random variables; statistical inference; simple linear regression; and statistical methods for quality control. In addition, students are required to complete a sequence of computer laboratory sessions using the R software package. Students learn to perform exploratory data analyses using graphical and numerical descriptive statistics, calculate probabilities and simulate from common probability distributions, calculate confidence intervals and perform hypothesis tests, and fit linear regression models.

Language(s) of Instruction
English

Host Institution Course Number
STAT20060

Host Institution Course Title
STATISTICS & PROBABILITY

Host Institution Campus

Host Institution Faculty
School of Mathematics and Statistics

Host Institution Degree

Host Institution Department

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