COURSE DETAIL

NUMERICAL METHODS & STATISTICS
Country Australia
Host Institution University of New South Wales
Program(s) University of New South Wales
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Statistics Mathematics
UCEAP Course Number 146
UCEAP Course Suffix
UCEAP Official Title NUMERICAL METHODS & STATISTICS
UCEAP Transcript Title NUM METHODS & STATS
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course examines numerical methods and statistics essential in a wide range of engineering disciplines. Numerical methods covers computing with real numbers, numerical differentiation, integration, interpolation and curve fitting (regression analysis), solution of linear and nonlinear algebraic equations, matrix operations and applications to solution of systems of linear equations, elimination and tri-diagonal matrix algorithms, and an introduction to numerical solution of ordinary and partial differential equations. Statistics covers exploratory data analysis, probability and distribution theory including the Binomial, Poisson and Normal distributions, large sample theory including the Central Limit Theorem, elements of statistical inference including estimation, confidence intervals and hypothesis testing, one sample and two-sample t-tests and F-tests, simple and multiple linear regression and analysis of variance and statistical quality control.

Language(s) of Instruction
English

Host Institution Course Number
MATH2089

Host Institution Course Title
NUMERICAL METHODS & STATISTICS

Host Institution Course Details
https://www.unsw.edu.au/course-outlines/course-outline#year=2023&term=Term%203&...

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Course Last Reviewed
2023-2024

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