

University of Pretoria Yearbook 2021

Linear mixed models 781 (STK 781)

Qualification	Postgraduate
Faculty	Faculty of Economic and Management Sciences
Module credits	15.00
NQF Level	08
Programmes	BComHons Statistics and Data Science BScHons Mathematical Statistics BScHons Statistics and Data Science
Service modules	Faculty of Natural and Agricultural Sciences
Prerequisites	Admission to either BScHons Mathematical Statistics or BComHons Mathematical Statistics or BScHons Statistics and Data Science or BComHons Statistics and Data Science
Contact time	1 lecture per week
Language of tuition	Module is presented in English
Department	Statistics
Period of presentation	Semester 1 or Semester 2

Module content

Specification of linear mixed model, model assumptions, estimation (REML and ML), diagnostics, hypothesis tests, interpretation of parameter estimates, calculating predicted values. Specific models: two- and three-level models for clustered data, intraclass correlation coefficients, repeated measures data, random coefficient models for longitudinal data, models for clustered longitudinal data, models for data with crossed random factors. Using statistical software to analyse LMMs.

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