

# University of Pretoria Yearbook 2020

## Linear mixed models 781 (STK 781)

<b>Qualification</b>	Postgraduate
<b>Faculty</b>	<a href="#">Faculty of Economic and Management Sciences</a>
<b>Module credits</b>	15.00
<b>Programmes</b>	<a href="#">BComHons Statistics and Data Science</a> <a href="#">BScHons Mathematical Statistics</a> <a href="#">BScHons Statistics and Data Science</a>
<b>Service modules</b>	Faculty of Natural and Agricultural Sciences
<b>Prerequisites</b>	BScHons and BComHons in Mathematical Statistics: WST 311; BComHons Statistics: STK 310, STK 320.
<b>Contact time</b>	1 lecture per week
<b>Language of tuition</b>	Module is presented in English
<b>Department</b>	Statistics
<b>Period of presentation</b>	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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