Statistical Science Workshop.
University of Waikato - Tauranga   6-7 March 2025

Introduction to the Workshop. - Joanne Ellis
Opening Remarks: What is Statistical Science and What it is Not. – David Schneider

Thursday   Session 1&2 : 9-11am TCBD.2.13
Session 1 GLM - The General Linear Model.
Writing the statistical model
Session 2 GLM - Model execution, checking, and results

Regression.	Demo: Phosphorus in corn.		Ch9.1
	Appl: Fly Heterozygosity in D. persimilis		Ch5.2
Single Categorical variable.			
	Demo: Pea Section Data		Ch10.3
	Appl: Oat Yield with and without treatment		Ch5.7
ANCOVA.	Demo: Fly Heterozygosity in two species		Ch14.1

Lunch
                                             Session 3&4 : 12-2:30pm TCBD.3.03
Session 3 – GzLM - The Generalized Linear Model
              - Writing the model – Notation
Session 4 – GzLM - Normal error example   Ch16.1
              - Model execution and checking (deviance residuals).
              - ANODEV table and results

- Poisson error	Demo: Death by Horsekick	Ch17.1
	Appl:	Ch17.5
	Demo: Hairy leaves	Ch17.4
	Appl: Woodland trees	Ch17.4
- Binomial error		Ch18.1, 18.2

Friday

                                           Session 5&6: 9-11am TBCD.2.13
Session 5 – GLMM General Linear Mixed Model (Experimental Design)
          Writing the model
          Nested Likelihood and F-ratios
Session 6 – GLMM. Execution, model checking, and results.

Lunch
                                          Session 7&8: 12:30-3:00pm TBCD2.12
Session 7 - General Linear Latent Variable Model – GLLVM
              - Single latent variable (correlation). Ch20.1
                Writing the model. Model execution and interpretation.
Session 8 - Multiple latent variables. /GradProj/MollyMorrissey2020_PCA_Code.pdf

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Content   https://davidcschneider.github.io/StatisticalScience/
          David.Schneider@mun.ca   Memorial University, St. John's, Canada