



16 February 2019
Saturday
8.30am - 2.30pm

The University of Queensland
St Lucia Campus

STAQ-UQ SENIOR BIOLOGY DATA FUN DAY

Presented by Dr Gurion Ang (a.k.a. Dr G), UQ Faculty of Science

Program

8am - 8.30am

Registration and Refreshments
Hawken Engineering Building 50 - S201

8.30am - 10am (optional)

Data Summary and Parametric Data Analysis

This session is valuable for teachers who have not attended previous offerings on data analysis and interpretation by UQ, but also useful for those who want a refresher. We will cover data summary (descriptive statistics) and parametric analysis (t-tests, and regressions only), and show you how to apply this in the context of practicals and assessment. You will need to bring along a laptop (Windows or Mac) with Microsoft Excel 2013 or upwards.

10am - 10.30am

Morning Tea and Registration for those opting not to attend the first session.

10.30am - 11.30pm

Error Analysis

This session will cover instrumentation error analysis, random error, and systematic error. In the context of experimental data, we will also discuss extrapolating reliability of data using standard deviation, standard error, and confidence intervals. You will be shown how to present these in graphical form, and the interpretations that can be made.

11.30am - 12.30pm

Application of Knowledge

We will analyse a selection of data (from primary literature), and in so doing consider how we might use data to teach subject matter in Units 3 and 4. Topics we will address include but will not be limited to, cladistics, ecology, and biotechnology, and the correct interpretation of data from these topics.

12.30pm - 1.15pm

Lunch

1.15pm - 2.30pm

Dr G's Biology Quiz

Assess and apply your knowledge with an examination-style quiz based on Unit 1 to 3 content (with multiple-choice and short response style questions). Together, we will review the answers, and in the process identify teaching and learning points for the classroom, and consider how an external examination may be constructed.