

Senior Biology PD (2020 Term 1)

Unit 3 PD Day - 22 February Saturday

Unit 4 PD Day - 21 March Saturday or **28 March** Saturday

The University of Queensland St Lucia Campus

Program for Unit 3 PD Day

Venue: Building 14, Lecture Theatre 212

7.45am - 8.10am

Registration and Refreshments

8.15am - 10.30am

Workshop: Data is Fun?!

Introduction to basic statistics, data analysis and interpretation, and professional scientific report writing, using authentic Unit 1 and Unit 3 datasets. Useful for new teachers or those who want a refresher. You are required to bring a fully-charged laptop (Windows or Mac) with Microsoft Excel 2013 versions and up.

Dr Gurion Ang, School of Biological Sciences

10.30am - 11.15am

Refreshments

Optional activity: analyse a mystery data set and verify your analytical methods by the end of the break.

11.15am - 12.45pm

Workshop: An Ecology Extra-Extravaganza

Unit 3 content deficits with ideas and implications for teaching and learning strategies based on how subject matter has been written in the syllabus and assessed in mock external examinations. This is complementary PD to An Ecology Extravaganza delivered in 2019 Term 3.

Dr Gurion Ang

12.45pm - 1.30pm

Refreshments

1.30pm - 2.30pm

TLC - Teacher Lightning Confabs

Sharing of practice by current senior biology teachers.

Presenters to be announced

2.30pm - 3pm

Discussion and Conclusions

Q&A, forum, and showcase of opportunities for you and your students.



Program for Unit 4 PD Day

Venue: to be announced

8.15am - 8.45am

Registration and Refreshments

8.45am - 10am

Workshop: A Genetics Gig

Repeat workshop of UQ-STAQ Senior Biology Day delivered in November 2019. Covers evolution, trait selection, and discussion on specific subject matter. You are required to bring a smartphone for an App-based activity.

Dr Gurion Ang

10am - 10.45am

Refreshments

Optional activity: work through some exam-style questions assessing subject matter related to evolution, and verify your answers at the end of the break.

10.45am - 12.15pm

Laboratory Workshop: DNA Extraction and PCR

We will perform a DNA extraction and Polymerase Chain Reaction, in addition to covering theory in depth. In the waiting time we will cover new techniques in biotechnology, focussed on CRISPR-based technology.

Dr Gurion Ang and tutors

12.15pm - 1pm

Refreshments

PCR running time; Optional activity: work through some exam-style questions assessing subject matter related to genetics, and verify your answers at the end of the break.

1pm - 2.45pm

Laboratory Workshop: Gel Electrophoresis

TLC - Teacher Lightning Confabs

We will perform a gel electrophoresis run, and during the running time there will be sharing of practice by current senior biology teachers. We will also attempt some data interpretation of gels and results of other biotechnology techniques.

Dr Gurion Ang and presenters to be announced

2.45pm - 3pm

Discussion and Conclusions

Q&A, forum, and showcase of opportunities for you and your students.

Meet the Presenter

Dr Gurion Ang

School of Biological Sciences

Associate Lecturer (teaching focused)

Dip Biotech, B Science (Honours I), PhD

Dr Gurion Ang is an academic-professional hybrid. In his role as a teaching-focussed academic with the School of Biological Sciences, he optimises student learning, performance and assessment in undergraduate biology courses. He teaches first year evolutionary theory for psychology students, second year entomology for our UQ Study Abroad students, as well as second year ecology and zoology. He is a practitioner of active learning pedagogues, especially inquiry-based learning, in his classroom.

He is also a part of the Faculty of Science Engagement Unit and in this role, he delivers unique workshops internationally. His suite of workshops includes an exploration of biology in popular culture, palaeontology, food security, and conservation science.

Gurion completed a zoology degree followed by his Doctor of Philosophy (PhD) in 2017 at the University of Queensland. He is an entomologist working with pest insects in agricultural settings. His research explores insect-plant interactions: understanding the intricate relationships between crop plants and their insect pests enable us to employ pest management strategies that ultimately reduce our reliance on insecticides. He undertakes this research from behavioural ecology and chemical ecology approaches.

