

## BIOS6001 Topics in Linear Models

(2 credits)

**Course Coordinator: Prof Benny Zee**

### Course Description

This course will cover advanced statistical modelling techniques for use with complex datasets. Topics will include Poisson and Negative Binomial regression for count outcomes, repeated measures ANOVA, GEE models and multilevel models for longitudinal data and multilevel models for clustered data.

### Learning Outcomes/Objectives

Upon completion of this course students will understand the reasons that more complex statistical models need to be used for datasets for which the assumptions of linear or logistic regression are not valid, such as datasets with ordinal or count outcomes, longitudinal or clustered data, and data with non-linear associations between variables. They will understand which models should be used for each of these situations, how to fit and interpret these models, and how to check the assumptions of these models.

### Course Schedule

Session	Date	Time	Venue
1	Apr 10, 2017 (Mon)	6:30 – 9:30 pm	School of Public Health Prince of Wales of Hospital Shatin, N.T., Hong Kong
2	Apr 24, 2017 (Mon)	6:30 – 9:30 pm	
3	May 8, 2017 (Mon)	6:30 – 9:30 pm	
4	May 15, 2017 (Mon)	6:30 – 9:30 pm	
5	May 22, 2017 (Mon)	6:30 – 9:30 pm	
6	May 29, 2017 (Mon)	6:30 – 9:30 pm	
7	Jun 5, 2017 (Mon)	6:30 – 9:30 pm	
8	Jun 12, 2017 (Mon)	6:30 – 8:30 pm	

### Fee

Application Fee: \$100

Course Fee: \$8,800