

## BIOS5002 Linear Models

(2 credits)

Course Coordinator: Prof. Marc Chong

### Course Description

This course will provide a foundation for the practical analysis of data for which the primary outcome is a continuous variable. The course will begin with an introduction to 'real-world' data analysis with a motivating example looking at predictors of infant birthweight in Hong Kong. Methods for multivariate analysis of predictors of continuous outcomes including one-way and two-way ANOVA and multiple linear regression will then be discussed in detail with an emphasis on correct use of these methods in practice.

### Learning Outcomes/Objectives

1. Understand and evaluate the use of linear models in the medical literature in an intelligent manner.
2. Develop skills in analyzing epidemiological data with continuous outcomes using linear models and to understand the basic principles that underlie research designs and statistical inference.
3. Perform fundamental statistical procedures for research projects involving continuous outcomes and interpret results.

### Course Schedule

| Session | Date               | Time           | Venue   |
|---------|--------------------|----------------|---|
| 1       | Jan 12, 2017 (Thu) | 6:30 – 9:30 pm | School of Public Health<br>Prince of Wales of Hospital<br><b>And</b><br>CUHK campus,<br>Shatin, N.T., Hong Kong |
| 2       | Jan 19, 2017 (Thu) | 6:30 – 9:30 pm |   |
| 3       | Jan 26, 2017 (Thu) | 6:30 – 9:30 pm |   |
| 4       | Feb 9, 2017 (Thu)  | 6:30 – 9:30 pm |   |
| 5       | Feb 16, 2017 (Thu) | 6:30 – 9:30 pm |   |
| 6       | Feb 23, 2017 (Thu) | 6:30 – 9:30 pm |   |
| 7       | Mar 2, 2017 (Thu)  | 6:30 – 9:30 pm |   |
| 8       | Mar 9, 2017 (Thu)  | 6:30 – 9:30 pm |   |
| 9       | Mar 16, 2017 (Thu) | 6:30 – 8:30 pm |   |

### Fee

Application Fee: \$100

Course Fee: \$8,800