



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

Course title: STAT7605 Clinical Biostatistics

Course coordinator: Professor Annette Dobson

Mode: External

Prerequisites: Epidemiology (PUBH7600), Mathematical Background for Biostatistics (STAT7601), Probability and Distribution Theory (STAT7614)

Course introduction:

Clinical agreement (kappa statistics, Bland-Altman method, intra class correlation); diagnostic tests (sensitivity, specificity, predictive values, ROC curves, likelihood ratio); statistical process control (special and common causes of variation, Shewhart, CUSUM and EWMA charts); systematic reviews (estimating effect, heterogeneity, publication bias). This course may not be offered if the enrolment is less than 10 students.

Course aims:

To enable students to use correctly statistical methods of particular relevance to evidence-based health care and to advise clinicians on the application of these methods and interpretation of the results.

Course content:

Clinical agreement (kappa statistics, Bland-Altman agreement method, intraclass correlation); diagnostic tests (sensitivity, specificity, predictive values, ROC curves, likelihood ratio); statistical process control (special and common causes of variation, Shewhart CUSUM and EWMA charts); and systematic reviews (process, estimating treatment effect, assessing heterogeneity, publication bias).

Method of assessment:

Assignments 92% (4 written assignments each worth 23%) and 8% for online discussions (2% for each module)

Recommended text: Nil

Computer requirements: Stata statistical software

Resources:

Printed course notes and assignment material by mail, email, and online interaction facilities

Further details are provided in the Course Profile: <http://www.bca.edu.au/courseinfo.htm>