

Biostatistics and Health Informatics Executive Education Programme 2019



UPCOMING CLOSING DATE

Structural Equation Modelling with STATA (Open)

1st April – 5th April 2019

Times: 09:00-17:30

Seminar room 1 & 2

Course Fee: £950

Last booking date: 27th March 2019

If you've ever wondered how to link latent constructs to measured variables to assess underlying causal and structural relationships, then this course will give you the understanding to build these advanced statistical models. Taught by experts in the field using a practical approach with applications in mental health, it will leave you with the skills to implement these methods in STATA in your current and future work.

This module is an introduction into path analysis and structural equation modelling using the STATA software. The module features an introduction to the logic of SEM, including assumptions, model specification, identification and estimation. Models for continuous and discrete response variables and continuous and discrete latent variables will be covered. Growth, autoregressive, MIMIC, and instrumental variable models will be included.

Clinical Trials: a practical approach (Open)

8th April – 12th April 2019

Times: 09:00-17:30

Seminar room 1 & 2

Course fee: £950

Last booking date: 2 April 2019

If you want to become an expert in clinical trial design, conduct, analysis and reporting, especially for complex behavioural interventions, join us in April. We will take a practical approach and illuminate RCTs through the lens of the mental health. This course provides a comprehensive introduction to trial design features used to mitigate bias, important aspects of trial design, conduct, analysis and reporting, and challenges and solutions for conducting RCTs with some focus on behavioural interventions.

***NEW Introduction to Health Informatics (Open)**

30th April – 2nd May 2019

Times: 09:00-17:30

Robin Murray A & B

Course Fee: £450

Last booking date: 23rd April 2019

If you want to understand the major issues related to applying informatics techniques to transforming medical data into knowledge driving the continuous improvement of healthcare. Then this course will give you the understand of the challenges faced by researchers working on medical records today in terms of data acquisition, cleaning, aggregation and structuring. The course will delve into the problems intrinsic to the domain, as well as general questions of how informatics techniques can help alleviate them, enabling the re-use of improve workflow and care.

***NEW Machine Learning for Health and Bioinformatics (Open)**

20th May – 22nd May 2019

Times: 09:00-17:30

Seminar room 1 & 2

Course Fee: £450

This course will give a complete introduction to machine learning use in the complex world of health informatics and bioinformatics. The course will cover the use of advanced techniques of predictive modelling and statistical learning (as polygenic risk scoring and regularised methods) for analysing genetics data, an introduction to health informatics to learn how to manage and use patients health information, and will also have room for methods on applied Machine Learning, where state-of-the-art algorithms, as Neural Networks and deep learning models, will be introduced and applied to problems in the domain.

Natural Language Processing (NLP) (Open)

17th June – 21st June 2019

Times: 09:00-17:30

Computer Room A & B

Course Fee: £950

The course provides an introduction to the nature of medical text, and the technical and organisational challenges encountered when processing. Featuring the major techniques of natural language processing, methods for extracting structured information from text, and for automatically classifying text, together with the selection of data for training and for evaluation. The course will provide a practical instruction in the use of some widely used tools in NLP, including GATE (a Java based framework) and nltk (a Python toolkit).

Causal Modelling and Evaluation (Open)

1st July – 5th July 2019

Times: 09:00-17:30

Seminar room 1 & 2

Course Fee: £950

This course will review statistical designs and analyses that enable valid causal effect estimation, including Propensity Scoring and Mendelian Randomisation in observational studies, methods for dealing with non-compliance in trials, Mediation Analysis and some Quasi-experimental designs. This course will include analyses and assessments techniques that can aid in developing strategies and help with management and funding decisions related to policy and programme evaluation.

***NEW Computational Neuroscience (Open)**

15th July – 19th July 2019

Times: 09:00-17:30

Seminar room 1 & 2

Course fee: £750

This course involves the application of statistical and modelling approaches to brain imaging; this will involve working with large structural and functional neuroimaging datasets to develop brain biomarkers of neurological and psychiatric disorders. The course aims to introduce core themes and techniques in neuroimaging and computational modelling in neuroscience, using Python and other relevant programming languages. To relate statistical models and methods to discover biomarkers and stratify patients with neurological and psychiatric disorders.

*Discounted Course Fees: 50% for KCL Students, 25% for other students, KCL Staff and Kings Health Partners.

(Open) – Course titles are linked to Estore pages for booking and application

For more information about our courses, please visit the BHI website:

<https://www.kcl.ac.uk/ioppn/depts/BiostatisticsHealthInformatics/index.aspx>

Or you can email: iop-biostatisticseducation@kcl.ac.uk