

Statistics teaching within UK degree programmes in Medicine and allied health sciences, including through undergraduate and postgraduate entry schemes and intercalation

Note. This particular form is not for inclusion of details of statistical teaching in Masters and PhD programmes.

Institution : **UCL GOS INSTITUTE OF CHILD HEALTH – Population, Policy, Practice Research and Teaching Department**

Overview: **We organize a module titled ‘Health Research Methods’ for undergraduate medical students enrolled in an intercalated bachelor programme (iBSC) Pediatrics and Child Health. The whole programme has a capacity of 20 students, and this module in particular is optional but a high proportion of 16-18 students typically enroll. This high proportion is due to most choosing a quantitative research project towards the end of the academic year. The module takes place weekly in 3 hour sessions over 10 weeks and is designed in a flipped lecture format. Students are given a lecture video one week in advance of each session and during the sessions students are taught how to apply what they learnt in the video through SPSS. The module starts with an introduction to research methods and study design. The rest of the module then focuses on quantitative data analysis progressing as far as linear and logistic regression.**

Type of undergraduate students:

Medical Dental Biology
Mathematics Other (please state:)

Estimated total number of students: 20, per group when separated :

Academic years where medical statistics is taught: 2nd for undergrad

No. estimated hours per academic year: 30

Please add fields to the table below, where necessary, to reflect missing subjects. This can easily be achieved by right-clicking in the last row and choosing the option 'insert' to insert individual rows. You can in turn copy-paste the content from an existing row and edit the subject name to suit your purposes.

Subject	Concept	Calculations/equations*	Descriptions/comments
Types of variable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Distributions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Normal distribution only
Summary Statistics	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Concepts of population and sample	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Confidence intervals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Hypothesis testing, p-values	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Comparing two means	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Comparing two proportions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Linear regression	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Logistic regression	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Graphs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Survival analysis	<input type="checkbox"/>	<input type="checkbox"/>	
Multivariate analysis	<input type="checkbox"/>	<input type="checkbox"/>	
Critical appraisal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Some focus devoted to critical appraisal
Other (please state)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bootstrapping, SPSS

*If applicable.

Assessment details: **iBSc students are examined at the end of the module via a 2.5hours SPSS exam done at computer rooms that counts for 100% of their module mark. They are given a dataset and asked a series of leading questions to comment on study design and run a statistical analysis. They are also indirectly tested through their end of year quantitative project.**

Computer package used:

Stata SPSS StatsDirect S-plus R
NCSS Matlab Other , please state which :

Recommended literature :

- 1. Practical Statistics for Medical Research, DG Altman, Chapman & Hall, 2006. ISBN 1584880392**
- 2. Medical Statistics: A guide to data analysis and critical appraisal, J Peat & B Barton, BMJ Books, Blackwell Publishing, 2007. ISBN 978-0-7279-1812-3**
- 3. Essential Medical Statistics, BR Kirkwood & JAC Sterne, Blackwell Science, 2005. ISBN 978-0-86542-871-3**
- 4. An Introduction to Medical Statistics, M Bland, Oxford University Press, 2008. ISBN 978-0-19-263269-2**
- 5. Medical Statistics at a Glance, A Petrie & C Sabin, Blackwell publishing, 2005. ISBN 978-1-4051-2780-6**
- 6. Statistics with Confidence, DG Altman, D Machin, TN Bryant, MJ Gardner. BMJ books, 2005. ISBN 0 7279 1375 1**
- 7. Presenting medical statistics from proposal to publication: A step-by-step guide. J Peacock & S Kerry, Oxford University Press, 2007. ISBN 0-19-859966-8**
- 8. Medical Statistics: A textbook for the health sciences. D Machin, MJ Campbell & SJ Walters. Wiley & sons, 2007. ISBN 978-0-470-02519-2**
- 9. Discovering statistics using SPSS. Andy Field, Sage Publications Ltd, 2009. ISBN 978-1847879073**

Contact - administration

Name : Dean Langan Position : Senior Teaching Fellow

Email : d.langan@ucl.ac.uk Address : 30 GUILFORD STREET, LONDON, WC1N 1EH

Telephone No. : +44 (0) 20 7905 2881

Contact - tutors

Name	Department	Email	Address	Telephone Number

Other comments:

Information last up to date: 19/08/2019

Please return to Margaret MacDougall at Margaret.MacDougall@ed.ac.uk