

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: SCHARR, University of Sheffield

Overview: Intercalated students

The first session is a lecture followed by a tutorial, session two is a long SPSS practical, and all remaining sessions are a lecture followed by an SPSS practical. The module is currently delivered in a 'flipped' style so lectures are online and students are expected to watch them prior to a tutorial or practical class. Face-to-face sessions start with a recap of the lecture material and then students work through guided notes and exercises with help from tutors.

Type of undergraduate students:

Medical Dental Biology
Mathematics Other (please state:)

Estimated total number of students per cohort: 37

Number per teaching group:

Academic years where medical statistics is taught: 2-3rd?

No. estimated hours per academic year:

Subject	Concept	Calculations/equations*	Descriptions/comments
Types of variable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Distributions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Summary Statistics	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Concepts of population and sample	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Confidence intervals	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Hypothesis testing, p-values	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Comparing two means	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Comparing two proportions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Linear regression	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Logistic regression	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Graphs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Survival analysis	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Multivariate analysis	<input type="checkbox"/>	<input type="checkbox"/>	
Critical appraisal	<input type="checkbox"/>	<input type="checkbox"/>	
Other (please state)			
Odds and risk ratios	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Meta-analysis	<input type="checkbox"/>	<input type="checkbox"/>	

*If applicable.

- Statistics revision (types of data, summary statistics, graphs, samples and populations, hypothesis tests, p-values, estimation and confidence intervals)
- Introduction to SPSS
- Summarising data (summary statistics, tables and graphs)

- Comparing quantitative data (t-tests, one-way ANOVA, Mann-Whitney, Wilcoxon signed rank, Kruskal-Wallis)
- Comparing categorical data (odds ratios, relative risks, Chi-square test, Fisher's exact test, Chi-square test for trend and McNemar's test)
- Correlation and regression (correlation and simple linear regression)
- Multiple linear regression (general linear model, multiple regression and ANCOVA)
- Logistic regression
- Survival analysis (Kaplan-Meier, log-rank test, Cox regression)
- Analysing longitudinal data (summary measures, repeated measures ANOVA)
- Sample size estimation (comparing two groups: continuous and binary endpoints)
- Practical issues (variable transformations, missing data, multiplicity, reporting results)

Assessment details:

The module is assessed by an assignment that involves writing a report of up to 2,000 words about the analysis of a data set that is provided. Along with the data a set of research questions are given for the students to answer

Computer package used:

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

Recommended literature :

Campbell, Machin and Walters (2008) medical Statistics 4th Ed. Chichester:Wiley

Contact – Administration/ Lead

Name: Richard Jacques

Position: lecturer in medical Statistics

Email: r.jacques@sheffield.ac.uk

Address: SCHARR Regent Court, 30 Regent St Sheffield

Telephone No.:

Contact - tutors

Name	Department	Email	Address	Telephone Number

Other comments:

Information last up to date: 17/06/2019

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