Module Assessment Guidance 2022-23

Module organiser(s)	Chris Frost		
Module title / code / slot	#2462 Generalised Linear Models		
Assessment title	Analysis and interpretation of data from a study that includes data suitable for analysis with generalized linear models.		
Assessment method	Data analysis and write-up		
Assessment weight	100% of module		
Submission Instructions	via Moodle (Coursework)	**Deadline**	12 noon on Wednesday 8th February.
Learning outcomes tested in this assessment (from Module Specification)	1. Understanding of the theoretical basis of Generalised Linear Models. 2. The ability to use Generalised Linear Models for analysis of discrete data. 3. The ability to present results clearly and accurately in a structured report, such as might form the basis of a report by a statistical consultant.		
Task details and instructions	The data come from a cross-sectional study conducted to investigate the aetiology of carotid plaque in a particular region of a European country. Carotid plaque is a risk factor for coronary heart disease measured using carotid ultrasonography. As well as carotid plaque, participants in the study reported numerous demographic and socio-economic factors. Detailed guidance on the aims of the analysis and the types of statistical analysis to be performed will be given when the assignment is set. In brief, the aims are to quantify the causal effects of smoking and waist-hip ratio on plaque. Previous studies have suggested that the effect of waist-hip ratio may differ in males and females, so this is one of the issues to be explored. You should also assess the effects that changes in smoking habits and obesity might have on plaque at a population level. The analysis should be carried out using Stata. You should bear in mind that for all of the analyses there is no single definitively correct approach. However, you should try to ensure that your approach always matches the aims of the analysis in question. All of the analysis aims can be addressed using techniques taught in the GLM and Medical Statistics MSc. modules taught earlier. Although you can use other techniques should you wish to, there is no need to do so. Devoting substantial time and space in the report to alternatives could also be a distraction from the main aims.		

Guidance on size and format	*Indicate a range of acceptable sizes e.g. words / duration. Include any penalties that may occur for overlong submission.* *There will be no penalty for students who use fewer than the maximum number of words count and have demonstrated that they have met the required assessment objectives. See Chapter 8a of the Academic Manual*
Support arrangements	The written assignment will be set on Wednesday 25th January 2023. There will be a dedicated session to work on this in class on the afternoon of Tuesday 31st January. Members of staff will be available to give technical advice during this session. The submission deadline is 12 noon on Wednesday 8th February.
Feedback type	Written developmental commentary.
Moderation	A moderation exercise is undertaken for all modules to ensure that the assessment task, marking guidelines, grades awarded, and feedback to students are appropriate.
Other advice and guidance	Please see the Extenuating Circumstances Policy. This outlines the circumstances in which you can request additional time or defer the assessment, and the procedure for applying. **Please note that only the Extenuating Circumstances Committee can approve an extension. Individual members of staff cannot make these decisions**. Penalties for exceeding the word count and for late submission. See Chapter 8a of the Academic Manual

Indicative Marking Criteria:

Assessment Title: Analysis and interpretation of data from a study that includes data suitable for analysis with generalised linear models.

Grade band	Generic LSHTM Grade Descriptor	Assessment-Specific Criteria
5	Excellent engagement with the topic, excellent depth of understanding and insight, excellent argument & analysis. Generally, this work will be 'distinction standard'. NB that excellent work does not have to be 'outstanding' or exceptional by comparison with other students; these grades should not be capped to a limited number of students per class. Nor should such work be expected to be 100% perfect – some minor inaccuracies or omissions may be permissible	An outstanding report describing a very thorough analysis, clearly explained and appropriately interpreted, showing in-depth understanding of the analyses performed, and including a comprehensive discussion of the findings of the analysis.
4	Very good engagement with the topic, very good depth of understanding and insight, very good argument and analysis. This work may be 'borderline' distinction standard. Note that very good work may have some inaccuracies or omissions but not enough to question the understanding of the subject matter.	A thorough analysis, well explained, with all major points addressed; less thorough than work awarded "5", or less clearly explained, or with more limited discussion.
3	Good (but not necessarily comprehensive) engagement with the topic, clear understanding and insight, reasonable argument and analysis, but may have some inaccuracies or omissions.	A sound and generally thorough analysis, but some pertinent (relevant) points are omitted and/or minor errors made, and/or the presentation lacks clarity.
2	Adequate evidence of engagement with the topic but some gaps in understanding or insight, routine argument and analysis, and may have some inaccuracies or omissions.	Understanding of most major points shown, but some non-minor errors in the analysis or interpretation, or muddled presentation.
1	Inadequate engagement with the topic, gaps in understanding, poor argument and analysis.	Inadequate analysis and lack of understanding of major points/important concepts shown.
0	Poor engagement with the topic, limited understanding, very poor argument and analysis.	Serious lack of understanding shown: inappropriate analysis used or serious misinterpretation of results. Or assignment not submitted.
0	Null mark may be given where work has not been submitted, or is in serious breach of assessment criteria/regulations.	