1. **KentVision Code and title of the module**

PSYC8012 Advanced Topics in Regression and Linear Modelling

1. **Division and School/Department** **which will be responsible for management of the module**

Division of Human and Social Sciences, School of Psychology

1. **The level of the module (Level 4, Level 5, Level 6 or Level 7)**

Level 7

1. **The number of credits and the ECTS value which the module represents**

10 Credits (5 ECTS)

1. **Which term(s) the module is to be taught in (or other teaching pattern)**

Spring

1. **Prerequisite and co-requisite modules and/or any module restrictions**

PSYC8011 Research Methods and Essential Statistics (prerequisite in Autumn)

1. **The courses of study to which the module contributes**

Compulsory to:

MSc Cognitive Psychology/Neuropsychology

MSc Developmental Psychology

MSc Forensic Psychology

MSc Political Psychology

MSc Social Psychology

Also compulsory on Psychology Postgraduate Research Courses.

Also available as an elective module.

1. **The intended subject specific learning outcomes.  
   On successfully completing the module students will be able to:**

8.1. Demonstrate conceptual and practical understanding of the rationale and technique of complex statistical approaches using linear models: for example, logistic regression, mediation, moderation, general linear models for ANOVA and repeated measures ANOVA, and multilevel analysis.

8.2. Use appropriate statistical software to conduct complex regression and ANOVA analyses including the specification of advanced-level models, working autonomously;

8.3. Interpret and critically evaluate results of complex regression and ANOVA analyses and outputs of statistical software, and make inferences from the results in applied settings;

8.4. Understand, generate, and critically evaluate results of complex regression and ANOVA procedures as they would be reported across various applied and basic psychological literatures.

1. **The intended generic learning outcomes.  
   On successfully completing the module students will be able to:**

9.1 Appreciate positions and controversies related to advanced inferential statistical analysis;

9.2 Demonstrate an appreciation of the diverse applications of the taught applications of advanced linear modelling statistics and their relevance to the student’s field of study and social sciences more broadly;

9.3 Acquire or improve competence in the use of statistical software to manage and code data, and to conduct inferential and descriptive analyses for a range of applications.

9.4 Act autonomously in problem-solving and be able to communicate observations to specialist and non-specialist audiences

1. **A synopsis of the curriculum**

This module provides a postgraduate-level orientation to advanced statistical issues in predictive models with a one-variable outcome. Students will learn techniques typically used for research in psychology and other disciplines that use sampling statistics, which ultimately depend on a common basis of linear modelling that follows a complex evolution into multiple specific applications. These may include: moderation with interactions involving ordinal variables; mediation models using regression; connections between linear models and traditional ANOVA approaches; factorial ANOVA, ANCOVA, repeated and mixed ANOVA; and multilevel modelling. The teaching assumes recent experience with basic statistical concepts, software, and tests which will be provided by a prerequisite module.

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

## The University is committed to ensuring that core reading materials are in accessible electronic format in line with the Kent Inclusive Practices.

## The most up to date reading list for each module can be found on the university's [reading list pages](https://kent.rl.talis.com/index.html).

1. **Learning and teaching methods**

Total contact hours: 30

Total private study hours:70

Total module study hours: 100

1. **Assessment methods**
   1. Main assessment methods

20% ICT (10 x 15 minutes in workshop)

80% Exam (1 x 120 minutes)\*

\*This element is pass compulsory and must be passed to achieve the learning outcomes of the module

13.2 Reassessment methods

100% exam

1. ***Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section12) and methods of assessment (section 13)***

**Module learning outcomes against learning and teaching methods:**

| **Module learning outcome** | 8.1 | 8.2 | 8.3 | 8.4 | 9.1 | 9.2 | 9.3 | 9.4 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Private Study* | **X** | **X** | **X** | **X** | **X** | **X** | **X** |  |
| *Lectures* | **X** | **X** |  | **X** | **X** | **X** |  | **X** |
| *Computing Workshops* |  | **X** | **X** | **X** |  |  | **X** | **X** |

**Module learning outcomes against assessment methods:**

| **Module learning outcome** | 8.1 | 8.2 | 8.3 | 8.4 | 9.1 | 9.2 | 9.3 | 9.4 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *ICT* |  | **X** | **X** | **X** |  |  | **X** | **X** |
| *Exam* | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |

1. **Inclusive module design**

The Division recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

1. **Campus(es) or centre(s) where module will be delivered**

Canterbury

1. **Internationalisation**

The curriculum of this module has designed to incorporate contemporary techniques and methodological approaches taught on internationally recognised statistics and measurement programmes. Specifically, there will be discussion of the appropriateness of standard quantitative methods for different cultures around the world. It also helps the strategic plan toward international recruitment by allowing more flexibility in Psychology MSc degrees regarding the amount of statistical instruction required.

**DIVISIONAL USE ONLY**

**Revision record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
| 15.06.23 | New | Sept 24 | - | - |
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