# KentVision modules code and title of the module

PSYC7103 Advanced Research Methods and Statistics

# School/Department and Division and or partner institution responsible for the module

School of Psychology, Division of Human and Social Sciences

# The level of the module

Level 7

# The number of credits and the ECTS value which the module represents

20 credits (10 ECTS)

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

Autumn

# Delivery of the module

* 1. **Mode of study**

In person

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

Canterbury

# Prerequisite and co-requisite modules and/or any module restrictions

None

# The course(s) of study to which the module contributes

* 1. **The module is compulsory for the following courses**

MSc Clinical Psychology

MSc Cognitive Psychology and Neuropsychology

MSc Developmental Psychology

MSc Forensic Psychology

MSc Organisational and Business Psychology

MSc Social Psychology

For Psychology Postgraduate Research degrees, individual students may be required to take this module on a non-credit basis as directed by their supervisory teams and depending on their prior level of statistical training.

* 1. **The module is optional for the following courses**

None

* 1. **Also available as an elective module.**

# Summary of module content

How can research methods and statistics answer advanced research questions in psychology? As a postgraduate student, this module will deepen your ability to answer research questions such as how children improve in their skills year on year, whether a given training module improves the ability to correctly identify faces, or what factors predict prejudice in the workplace. You will learn about the logic of qualitative analysis and the many different forms it takes, and gain a firmer understanding of quantitative analysis, sampling, and statistical inference. In preparation for understanding and conducting research, you will learn advanced insights about correlational and experimental methods to understand relationships, causes and effects among variables. Building on this understanding, you will learn in-depth how simple correlations underlie understanding of multiple regression and its assumptions, and how regression in turn supports the general linear model, which is key to the other advanced topics taught in the module. The teaching will keep up-to-date with the latest advances in open science and transparent reporting of evidence. We will also use open source software to support practical lessons and assessments in data analysis, so that you can produce as well as understand the techniques being taught. Reporting your results through writing in APA style and appropriate data visualisation is an important skill that you will learn for a variety of analyses. There is also a special focus upon learning how to identify which analysis technique is right for any given statistical problem.

# Module Learning Outcomes

On successfully completing the module, students will be able to:

1. Demonstrate conceptual understanding of the rationale and technique of different qualitative and quantitative approaches in research methodology;
2. Demonstrate systematic conceptual and practical understanding of the rationale and technique of advanced statistical inference approaches, using linear models and other techniques.
3. Advance autonomous problem-solving skills, learning how to use statistical software to manage and process data and carry out high-level descriptive and inferential analyses for a range of applications.
4. Understand, generate, and critically evaluate results of advanced statistical analyses and outputs of statistical software, as they would be reported in applied and basic psychological literature, and be able to communicate observations to specialist and non-specialist audiences.
5. Appreciate theoretical positions, practical applications, and controversies related to quantitative methods, qualitative methods, and inferential statistics, and their relevance to the student’s field of study and social sciences more broadly;
6. Demonstrate the skills to analyse data and make sense of statistical materials; integrate numerical and non- numerical information; understand the limits and potentialities of arguments based on quantitative information
7. Deploy the skills to select and use the major analytic techniques employed by psychologists and to generate and test hypotheses on the basis of theoretical knowledge and gaps in relevant fields of psychology and their associated literatures.

# Learning and Teaching Methods

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| **Learning and Teaching Method** | **Hours Allocated** |
| Lecture | 24 |
| Workshop *(amend and add rows below as necessary)* | 16 |
| Independent Study | 110 |
| Assessment Preparation | 50 |
| **Total Hours** | **200** |

# Assessment Strategy

* 1. **Assessment methods**

These assessments have been designed to be accessible in-line with the [Kent Inclusive Practices.](https://www.kent.ac.uk/guides/accessible-content/kent-inclusive-practices)

Students build their skills at applying the theoretical concepts to data at hand gradually in the weekly computing workshops, where they get instant feedback on short weekly data analysis assignments that happen at the last 30 minutes of each 2-hour computing workshop. The students should reach the end of term having applied and practised all statistical techniques taught, and at that point are assessed by an examination testing their understanding of theoretical concepts but also their ability to interpret and critically evaluate the results of statistical analyses presented to them, without actually doing the analyses themselves (as they have already been assessed on that outcome).

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| **Assessment Type** | **Assessment Component** | **Assessment Details** | **Assessment Volume** | **Assessment Preparation Hours** | **Module Learning Outcomes Assessed** | **Weighting (%)** | **Pass/**  **Compulsory?** |
| Examination | Examination | Examination | 2-hours | 50 | 1,2,4,5, 6, 7 | 80% | Yes |
| Skills | Computing exercises | Weekly Computing exercises | 8 x 30-minute assessments | 8 x 1 | 2,3,4, 6, 7 | 20% | Yes |

* 1. **Reassessment methods**

Like for Like  
For computing exercises, re-attempt the exercises within a given time window.

# Reading list

The University is committed to ensuring that core reading materials are in accessible electronic format in line with the [Kent Inclusive Practices](https://www.kent.ac.uk/guides/accessible-content/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).

# Inclusive module design

The Division*)* recognises and has embedded the expectations of current equality legislation, by ensuring that the module aligns to the Kent Inclusive Practices accessibility requirements. 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 A, Appendix A](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.kent.ac.uk%2Feducation%2Fdocuments%2Fcode-of-practice-taught%2Fcode-of-practice-taught-annex-a-appendix-a-requirements-for-modules.docx&wdOrigin=BROWSELINK)) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

**MODULE RECORD**

**All revisions for this module are recorded in the table below for student and staff information.**

| **Date approved** | **New/ Material/ Major/ Minor revision** | **Start date of delivery of this version** | **Applies to new cohorts and/ or existing students** | **Sections revised (if applicable)** |
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