University of Reading

Modules

PYM0S2-Data Collection & Analysis 2

Module Provider: Psychology

Number of credits: 10 [5 ECTS credits]

Level: 7

Terms in which taught: Spring term module

Pre-requisites:

Non-modular pre-requisites:

Co-requisites: PYM0S1 Data Collection and Analysis 1

Modules excluded: Current from: 2022/3

Module Convenor: Dr Anthony Haffey **Email:** anthony.haffey@reading.ac.uk

Type of module:

Summary module description:

Via a mix of seminars and workshops, the module will extend students' theoretical and practical knowledge of data analysis, and of general statistical concepts such as general linear models.

Aims:

The module will extend students' theoretical and practical knowledge of data analysis, and of general statistical concepts such as general linear models.

Assessable learning outcomes:

By the end of the module, students should be able to:

show knowledge of the purpose of each statistical technique covered, its assumptions and limitations

show understanding of the foundations of two strategies that underlie all the statistical techniques - (1) general linear modelling (2) reducing multiple variables to a smaller number of dimensions or components

choose appropriate techniques from those taught to test hypotheses about provided psychological data

use R to implement the techniques, and interpret the results

Additional outcomes:

The content of this module will be drawn upon in many parts of the programme, in practical assignments (PYM0EP) and in theoretical or evaluative aspects of other modules.

Outline content:

General linear models. Analysis of variance. Analysis of covariance. Principal component analysis.

Brief description of teaching and learning methods:

- 1. Lectures on statistical principles and analysis, with some self-directed activities (not counted for the final mark) to consolidate learning.
- 2. Directed reading of books and articles on statistical issues not covered by the lectures.
- 3. Self-paced statistical computing practical classes with demonstrator support.

Contact hours:

	Autumn	Spring	Summer
Seminars	10		
Practicals classes and workshops	10		
Guided independent study:	80		
Total hours by term	100	0	0
Total hours for module	100		

Summative Assessment Methods:

Method	Percentage
Written assignment including essay	100

Summative assessment- Examinations:

Summative assessment- Coursework and in-class tests:

Assessment will be by a data analysis assignment of a provided set of data to test specific hypotheses, choosing from statistical methods covered in the module and using R. The written report should justify the methods used, present the results of the analysis, interpret them and comment on the validity of the analyses.

Formative assessment methods:

Students will receive angoing feedback during the practical sessions and are invited to discuss

their assignment outcome in a one-to-one meeting.

Penalties for late submission:

The below information applies to students on taught programmes except those on Postgraduate Flexible programmes. Penalties for late submission, and the associated procedures, which apply to Postgraduate Flexible programmes are specified in the policy "Penalties for late submission for Postgraduate Flexible programmes", which can be found here: https://www.reading.ac.uk/cqsd/-/media/project/functions/cqsd/documents/cqsd-old-site-

documents/penaltiesforlatesubmissionpgflexible.pdf

The Support Centres will apply the following penalties for work submitted late:

where the piece of work is submitted after the original deadline (or any formally agreed extension to the deadline): 10% of the total marks available for that piece of work will be deducted from the mark for each working day (or part thereof) following the deadline up to a total of five working days;

where the piece of work is submitted more than five working days after the original deadline (or any formally agreed extension to the deadline): a mark of zero will be recorded.

The University policy statement on penalties for late submission can be found at: https://www.reading.ac.uk/cqsd/-/media/project/functions/cqsd/documents/cqsd-old-site-documents/penaltiesforlatesubmission.pdf

You are strongly advised to ensure that coursework is submitted by the relevant deadline. You should note that it is advisable to submit work in an unfinished state rather than to fail to submit any work.

Assessment requirements for a pass:

50% overall

Reassessment arrangements:

If a student fails the assignment, an alternative, equivalent assignment can be submitted. The assignment and date of submission will be by arrangement with the Module Convenor and/or Programme Director. Students should note however that, given the University regulations on failing credits, it may not be in their interests to resubmit the coursework.

Additional Costs (specified where applicable):

- 1) Required text books:
- 2) Specialist equipment or materials:
- 3) Specialist clothing, footwear or headgear:
- 4) Printing and binding:
- 5) Computers and devices with a particular specification:
- 6) Travel, accommodation and subsistence:

Last updated: 21 November 2022

THE INFORMATION CONTAINED IN THIS MODULE DESCRIPTION DOES NOT FORM ANY PART OF A STUDENT'S CONTRACT.

Things to do now

Return to previous page

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