

Summary Information

Module Code	4205PSYSCI
Formal Module Title	Research Methods and Statistics in Psychology 2: Testing for Differences
Owning School	Psychology
Career	Undergraduate
Credits	10
Academic level	FHEQ Level 4
Grading Schema	40

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Andrew Jones	Yes	N/A

Module Team Member

Contact Name	Applies to all offerings	Offerings
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Partner Module Team

Contact Name	Applies to all offerings	Offerings
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Teaching Responsibility

LJMU Schools involved in Delivery
Psychology

Learning Methods

Learning Method Type	Hours
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Online	10
Workshop	22

Module Offering(s)

Offering Code	Location	Start Month	Duration
JAN-CTY	CTY	January	12 Weeks

Aims and Outcomes

Aims	1. To develop an understanding of basic statistical concepts, descriptive statistics, t-tests, Mann-Whitney U test, Wilcoxon Matched Pairs, ANOVA, post-hoc testing.2. To use SPSS to carry out statistical analyses testing for differences between groups.3. To give practical experience of between subjects research methods.4. To further develop practical report writing skills.
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Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Write a laboratory report conforming to APA style
MLO2	Employ the appropriate statistical test, and interpret its outcome.
MLO3	Utilise generic principles of research design and basic statistical testing.

Module Content

Outline Syllabus
The module will explore different approaches to research design with a focus on the differences between testing for between and within-group differences, for example, t-test, Mann Whitney U test, Wilcoxon Matched Pairs, ANOVA and post-hoc tests using SPSS. Research report writing will be re-discussed with an emphasis on experimental designs. Advanced data processing (e.g. outlier analysis and transformation) will be discussed. Students will also gain experience of questionnaire design, and will develop understanding of ethical principles and procedures in research design.

Module Overview
This module will introduce the tools needed for carrying out a literature search. It will provide you with a practical introduction on how to design an experiment, collect data in an ethical manner, perform statistical analysis and write up findings in a manner consistent with published material. Building on from Research Methods and Statistics in Psychology 1: Relationships and Associations, you will learn more complex statistical tests.

Additional Information

Introduction to Research Methods and Statistics in Psychology 2: differences provides students with a practical introduction to how to design an experiment, collect data in an ethical manner, perform statistical analysis and write up findings in a manner consistent with published material. Throughout the module students will be required to use computers to conduct literature searches and to perform statistical analysis. In the module students will be introduced to the basic principles of experimental research design, they will then learn more complex statistical tests for differences between two groups (t-test, Mann Whitney U test, Wilcoxon Matched pairs) and three groups (ANOVA). Students will also learn the basics of questionnaire design. Students will demonstrate their learning through the coursework task by writing a scientific laboratory report and an additional results section. Both components together ensure both depth and breadth of understanding.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Learning Outcome Mapping
Portfolio	Portfolio	100	0	MLO1, MLO2, MLO3