

Liverpool John Moores University

Title: RESEARCH METHODS 2
Status: Definitive
Code: **4003SPOSCI** (114182)
Version Start Date: 01-08-2011

Owning School/Faculty: Sports Sciences
Teaching School/Faculty: Sports Sciences

Team	Leader
Mark Scott	Y

Academic Level: FHEQ4
Credit Value: 12.00
Total Delivered Hours: 36.00
Total Learning Hours: 120
Private Study: 84

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	24.000
Tutorial	11.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	Numerical type	50.0	1.00
Report	AS2	Report	50.0	

Aims

To provide students studying Sport, Exercise, Physical Activity and Health with an introduction to the basic principles of statistical analysis. To introduce the use of statistical computer packages in data analysis.

Learning Outcomes

After completing the module the student should be able to:

- 1 Apply, interpret and report a variety of statistical tests to common problems in sport, exercise, physical activity and health sciences.
- 2 Use and apply a computer based statistical package, i.e. SPSS.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

EXAM	1	
Report	1	2

Outline Syllabus

Introduction to statistical packages (SPSS) on networked PCs: reading and entering data, SPSS commands; saving, inputting and printing the SPSS worksheet, tables and simple statistical and graphical analysis.

Introduction to statistical support software (e.g. Stats for the terrified).

Types of numerical data.

Exploring data for the underlying distribution.

Difference testing for two groups/conditions (both parametric and non-parametric).

Correlation (both parametric and non-parametric)

Linear regression

Chi-Squared

Learning Activities

Students receive lectures on all of the topics covered in the module. Following a lecture students then take part in a computer tutorial session. Within the tutorial session students complete a worksheet. The worksheet focuses on using the features of the statistical package that were relevant to the topic covered in the lecture. Students also have to interpret the outcome of the statistical analysis.

References

Course Material	Book
Author	Nevill, A and Atkinson, G
Publishing Year	2001
Title	Statistical methods in kinanthropometry and exercise physiology
Subtitle	In: Kinanthropometry and Exercise Physiology Manual: Tests, Procedures and Data Volume 1
Edition	2nd
Publisher	E&FN Spon
ISBN	0415251885

Course Material	Book
Author	Thomas, J.R. and Nelson, J.K.
Publishing Year	2005
Title	Research Methods in Physical Activity
Subtitle	
Edition	5th
Publisher	Champaign, Human Kinetics
ISBN	0873222911

Course Material	Book
Author	Vincent, W.J.
Publishing Year	2005
Title	Statistics in Kinesiology
Subtitle	
Edition	3rd
Publisher	Champaign, Human Kinetics
ISBN	0736001484

Notes

This module provides an introduction to the common statistical techniques used in sport, exercise, physical activity and health sciences. Students have the opportunity to learn the principles behind how to choose a statistical test. Students are shown how to conduct the statistical tests manually and using SPSS.