

## Liverpool John Moores University

Title: RESEARCH SKILLS AND EMPLOYABILITY  
Status: Definitive  
Code: **5021NATSCI** (120930)  
Version Start Date: 01-08-2015

Owning School/Faculty: Natural Sciences & Psychology  
Teaching School/Faculty: Natural Sciences & Psychology

Team	Leader
Carlo Meloro	Y
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**Academic Level:** FHEQ5      **Credit Value:** 24.00      **Total Delivered Hours:** 56.00  
**Total Learning Hours:** 240      **Private Study:** 184

### Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	16.000
Online	2.000
Tutorial	11.000
Workshop	27.000

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	Portfolio		50.0	
Test	Stats		50.0	

### Aims

*To increase understanding of the statistical analysis of data and the use of statistical software programmes such as SPSS.*

*To have a clear understanding of graduate jobs opportunities and be able to prepare a career plan.*

## Learning Outcomes

After completing the module the student should be able to:

- 1 Understand and select appropriate study design for a given scientific study
- 2 Choose appropriate methods to statistically analyse data
- 3 Interpret analysis produced by a computer-based statistical package (SPSS)
- 4 Demonstrate a comprehensive range of employment skills related to the design, preparation and management of a career in science or other related sectors
- 5 Demonstrate a thorough understanding of organisational structure for major employer companies in science and other related sector
- 6 Demonstrate an understanding of personal skills in the scientific and other related sectors

## Learning Outcomes of Assessments

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

Employability portfolio	4	5	6
Stats Workshops	1	2	3

## Outline Syllabus

*Principles of experimental design; Data Analysis: Practical aspects of data analysis; transformation of data to meet assumptions. One and two way analysis of variance and associated post-hoc tests e.g. Tukey test. Non-parametric equivalents of ANOVA, e.g. Kruskal Wallis. Testing for associations using correlations. Modelling Linear relationships using regression.*

*Time, budget and people management. Preparation of career plan in science and other related sectors. Milestone plans. Meetings and record keeping (agendas, minutes, etc.). Job advertisement preparation, short-listing & interviews. Employability and graduate skills.*

## Learning Activities

The module is delivered through lectures, workshops, tutorials, group meetings, role play and directed study. The statistical lectures and workshops extend knowledge of research design and statistical techniques suitable for the analysis of data from field and laboratory practicals and projects using the statistical package SPSS.

Preparation of a career plan comprises also substantial element of single and group work and integrates online activities with workshop delivered by the career advisory team of LJMU. A strong emphasis is put on self-directed study (including a large component of group work) and the development of graduate skills for employability.

## **Notes**

This module covers all aspects of handling and analysing scientific data and the development of employability/graduate skills.

It considers the fundamentals of analysing and interpreting scientific data using examples relevant to all biosciences. Additionally, it will allow student to prepare a better career plan in science as well as become self-aware of employability skills.