

Module Title and Code

PS3014: Practicals, Methodology and Statistics III

Lecturer(s)

Dr Michael Gordon

Contact Hours

One semester: 22 x 1-hour lectures/workshops; 103 hours of independent study

ECTS Value

5 ECTS (=125 student hours)

Rationale and Aims

The aim of this course is to provide students with practical skills for analysing research data. The course builds upon and integrates previous knowledge through the application of statistical analyses to a variety of research issues. Advanced multivariate techniques (e.g., factor analysis) build upon previous Freshman teaching on linear regression (e.g., multiple regression) and ANOVA (e.g., ANCOVA).

For whom is the module intended?

Junior Sophister TSM Psychology students

How does it fit in to the academic programme?

This module provides advanced coverage of material in some of the essential aspects of the discipline of psychology and is required to be covered by the professional accreditation body, Psychological Society of Ireland.

Is it mandatory or optional?

Mandatory

Are there prerequisites?

Cognate foundation modules.

From a teaching point of view, what are the intentions of the lecturer?

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Course Content

- Psychometrics
- Exploratory Factor Analysis
- Confirmatory Factor Analysis
- Simple Regression
- Multiple Regression
- Logistic Regression
- Between-groups ANOVA
- Repeated-measures ANOVA
- Factorial ANOVA
- ANOVA Interactions
- ANCOVA and Planned Contrasts
- MANOVA
- Assessment

Indicative Resources

Gravetter F.J. & Wallnau, L.B. (2009). Statistics for the Behavioral Sciences. 8th Ed. Wadsworth, Thomson.

- Grimm, L.G. & Yarnold, P.R. (1995) Reading and Understanding Multivariate Statistics. APA
- Grimm, L.G. & Yarnold, P.R. (2002) Reading and Understanding more Multivariate Statistics. APA.
- Howell, D. (1998). Statistical Methods for Psychology (or Behavioral Sciences). 6th Ed. Duxbury.
- Howitt, D. & Cramer, D. (2008). Introduction to Research Methods in Psychology. Pearson.
- Tabachnick, B. & Fidell, L. (1996). Using Multivariate Statistics. 4th Ed. Pearson.

As this is an advanced module, state-of-the-art and up-to-date journal articles from the relevant research literature on specific techniques will be made available throughout the module.

Learning Outcomes

On successful completion of this module, students will be able to:

- demonstrate knowledge of the conceptual challenges of psychological measurement (PO2, PO4, PO5)
- use SPSS to analyse and interpret data for univariate and multivariate analyses (PO2, PO4, PO5)
- report research findings appropriately (PO5,PO6)

Methods of Teaching and Student Learning

The format of lectures is conventional but students are encouraged to ask questions and to engage the lecturer in discussion where practicable. Computer-based exercises provide students with the necessary skills to analyse and interpret data

Inclusive curriculum: Each lecture and any supporting and accompanying documentation is posted on our school website to facilitate independent study and self-paced learning.

Methods of Assessment

This module is assessed by an in-class continuous assessment, comprising:

- a) One report (2,500 words, 32%);
- b) Two hour class based examination comprising data analysis and interpretation of a SPSS data set (68%).

It is expected that:

- (i) responses should be critical, original and synthetic and should be based on reading beyond the lecture notes.
- (ii) data analyses and interpretations are informed by comprehensive understanding of the statistical technique.

Evaluation

All modules are evaluated by students by means of CAPSL survey requested by the School and all feedback is noted and incorporated in module design where appropriate for delivery of the module in subsequent years.

Feedback is also delivered via student representatives at the School's once a term staff-student meetings, at School Committee meetings and at the Committee for Undergraduate Teaching & Learning meetings.