

# PS655: Advanced Research Methods for Psychology

**Module coordinator:** Dr. Michael Daly

**Credit Weighting:** 5

**Semester 2**

**Module Objective:** To consolidate and advance learning in statistical analysis, explore more advanced quantitative techniques applied to psychological data, and examine good research practice and open science.

## **Module Content**

- Logistic Regression
- Advanced ANOVA analysis
- Factor analysis
- Corrections for multiple hypothesis testing
- Statistical power and pre-study odds
- Replication
- P-hacking
- Open science and good research practice

## **Learning outcomes**

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

- Undertake logistic regression and various types of factorial ANOVA on psychological data
- Perform exploratory factor analysis
- Have an advanced appreciation of the usefulness and limitations of hypothesis testing
- Appreciate the vital role of statistical power in designing and executing reliable studies in psychology
- Be able to represent psychological data in the most meaningful manner
- Understand the importance of good research practice in psychology

**Assessment:** Continuous Assessment: 100%

**Compulsory Elements:** All continuous assessment.

**Pass Standard and any Special Requirements for Passing Module:** 40%