



Module code	QP	NQF level	5
Credit value	15	Study duration	9 weeks

Quantitative Psychology

Module description

The study of psychology is framed within behavioural science and competence in statistical analysis central to the discipline. Statistics are the methods that psychologists use for the objective, systematic description and interpretation of research results. The goal of this module is to teach some of the most commonly used statistical techniques.

Students will learn: how statistics support the interrogation of hypothetical constructs; the role that data distributions play in the choice of statistical tests; how statistical power and the choice of correct tests are key to avoiding type 1 and type two errors. Data collection and analysis during this unit will develop key competencies in descriptive statistics (tests use to summarise data) and inferential analysis (tests designed to make inferences about populations and groups).

This module aims to:

- Develop students':
 - capacity to formulate and test research questions and hypotheses
 - experience of more complex quantitative research skills
 - experience with data collection and management, e.g. SPSS

Learning outcomes

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

- critique of the logic behind the research hypothesis and the role that it plays in designing studies, analysing data and interpreting those findings
- differentiate between the different research designs in quantitative research
- logically handle and interpret data generated through each of those methods
- organize and compose a scientific paper to the standards of the American Psychological Association
- demonstrate knowledge of ethical theory relevant to social science research
- plan, gain ethical approval and/or conduct research which demonstrates consideration for the protection of research participants and adheres to the principles of the British Psychological Society's Code of Human Research Ethics

Syllabus

- Research design
- Data collection
- Parametric and non-parametric analysis
- Inferential analysis
- Ethics in research

Learning and teaching methods

The pedagogical approach for this module is informed through the principles of collaborative enquiry, constructionism and scientific apprenticeship.

Collaborative enquiry is supported through our internet-mediated learning platform that aims to develop a learning community and support dialogue and collaboration between students. This is encouraged through online peer discussion and debate to construct a unique learning experience that enhances students' subject understanding through social interactions and empowers them to explain their understandings, and receive feedback from tutors and peers.

Learning through scientific apprenticeship will take place through the integration of scientific knowledge, principles and experience into the practical application of both the qualitative case study approach and the scientific report.

Teaching will be delivered through the provision of specified reading materials that will be provided on the University of Essex Online learning platform, and will be supported by specified discussion forums, pre-recorded lecturecasts and biweekly online question and answer sessions (using synchronous communication software and application sharing facility).

Students will be provided with indicative guidance on, and encouraged to look at relevant websites which are appropriate to the learning outcomes, and to identify and share appropriate web-based resources (as learning support references) with their fellow students.

The pre-recorded lecturecasts and the online question and answer sessions will include referenced use of selected case studies which will be drawn from the reading materials and the practice-based and professional/educational contexts and experience of the tutors.

Self-managed learning will supplement lectures and students will be given direction on required and indicative reading.

Description of unit of assessment	Length/Duration	Submission date	Weighting
Scientific report	3,000 words	Mid module	50%
End of Module Project: Scientific Research Paper Presentation and Outline	15 minutes 2,000 words	End of module	50%