University of the
West of England

MODULE SPECIFICATION

Code: USPJMC-40-M **Title:** Advanced Quantitative Research Practice in Psychology **Version:** 2

Level: M **UWE credit rating:** 40 **ECTS credit rating:** 20

Module type: Standard

Owning Faculty: Health and Life Sciences **Field:** Psychology

Faculty Committee approval: Quality and Standards Committee **Date:** September 2010

Approved for Delivery by: N/A

Valid from: October 2010 **Discontinued from:**

Pre-requisites:
None

Co-requisites:
None

Entry Requirements:
None

Excluded Combinations:
None

Learning Outcomes:

The student will be able to:

-understand and evaluate the assumptions, theories and concepts underpinning quantitative research;
-understand key ethical issues in quantitative research and the ethical implications of particular methods and approaches;
-evaluate research using a wide range of quantitative methods;
-demonstrate a critical understanding of the key differences and commonalities between a range of different quantitative research methods and approaches;
-design studies, develop appropriate research questions and select appropriate research methods;
-design and implement a wide range of quantitative methods and approaches;
-code and analyse quantitative data drawing on a wide-range of techniques and approaches;
-critically reflect on the research process and their role in research;
-understand the distinction between method and analysis.

Syllabus Outline:

This module will introduce students to a wide-range of approaches and methods for collecting quantitative data (including experimental and psychophysiological measures, psychometrics and survey methodologies and observational methods) and analysing psychological data in quantitative psychological research. Through a series of practical tasks students will learn how to design and implement these methods and how to critically analyse and evaluate research using these methods. Students will learn how to design research questions and select appropriate methods to help answer these questions. They will further their understanding of research ethics and develop an ability to apply them to the use of these methods. They will also further their ability to reflect on the research process and their role in research and further their understanding of the assumptions, theories and concepts underpinning quantitative research in psychology.
With regard to data analysis, students will gain a practical understanding a wide-range of methods that can be used to analyse quantitative data. Through a series of practical tasks students will learn how to analyse quantitative data derived from different psychological methods using different quantitative techniques, such as analysis of variance, regression modules and structural equation modelling. Students

will develop skills in critically analysing and evaluating research using an understanding of quantitative analysis, including an understanding of measurement, bias, sampling, and displaying and reporting data. Students will learn how to design quantitative research questions and select appropriate methods to help answer these questions, as well as appropriate ways of reporting data and analyses.

The module will include some or all of the following (depending on the interests and expertise of staff available to teach on this module):

Quantitative Data Collection
Critical and practical issues in the following type techiniques:
- Experiments
- Psychophysiological measurements
- Diary studies
- Quasi experiments
- Naturalisitic data
- Observation techniques
- Psychometrics
- Surveys (online, telephone, face to face, etc.)
- Systematic reviews

Quantitative Data Analysis
- measurement
- samples and populations
- univariate analysis techniques
- multivariate analysis techniques
- regression techniques
- structural equation modeling
- meta-analysis
- power and effect size

Teaching and Learning Methods:

Workshops, framing lectures, group discussions, small group work, reading groups
Guided reading and other activities (e.g. using psychometrics, running surveys)

Reading Strategy:

All students will be encouraged to make full use of the print and electronic resources available to them through membership of the University. These include a range of electronic journals and a wide variety of resources available through web sites and information gateways. The University Library's web pages provide access to subject relevant resources and services, and to the library catalogue. Many resources can be accessed remotely. Students will be presented with opportunities within the curriculum to develop their information retrieval and evaluation skills in order to identify such resources effectively.

Any **essential reading** will be indicated clearly, along with the method for accessing it, e.g. students may be expected to purchase a set text, be given or sold a print study pack or be referred to texts that are available electronically, etc. This guidance will be available either in the module handbook, via the module information on Blackboard or through any other vehicle deemed appropriate by the module/programme leaders.

If **further reading** is expected, this will be indicated clearly. If specific texts are listed, a clear indication will be given regarding how to access them and, if appropriate, students will be given guidance on how to identify relevant sources for themselves, e.g. through use of bibliographical databases.

Indicative Reading List:

Students will be expected to read journal articles and key texts to support their learning on this module and will be directed to relevant reading for each lecture/seminar as well as to relevant online resources.

Indicative texts:

Recent editions of the following:

Clark-Carter, D. (2009). Quantitative Psychological Research. Hove: Psychology Press.

Field, A. F. (2009). Discovering Statistics Using SPSS. London: Sage.

Rust, J. & Golombok, S. (2009). Modern Psychometrics. London: Routledge.

Breakwell, G. M., Hammond, S., Fife-Schaw, C. & Smith, J. A. (2009). Research Methods in Psychology. London: Sage.

Assessment:

Weighting between components A and B (standard modules only) A: 25% B: 75%

FIRST ATTEMPT

First Assessment Opportunity

Component A *(controlled)*		**Element Wt (Ratio)**
Description of each element		*(within Component)*
EX1	Design and Analysis Exam (2 hours)	1
EX2	MCQ and Short Answer Exam (2 hours) FINAL ASSESSMENT	1

Component B		**Element Wt (Ratio)**
Description of each element		*(within Component)*
CW1	Coursework portfolio - Surveys	1
CW2	Coursework portfolio - Experimental Methods	1
CW3	Coursework portfolio - Advanced Statistics	1
CW4	Coursework portfolio - Psychometrics	1

Second Assessment Opportunity (further attendance at taught classes is not required)

Component A *(controlled)*		**Element Wt (Ratio)**
Description of each element		*(within Component)*
EX1	Design & Analysis Exam (2 hours)	1
EX2	MCQ and Short Answer Exam (2 hours) FINAL ASSESSMENT	1

Component B		**Element Wt (Ratio)**
Description of each element		*(within Component)*
CW1	Coursework portfolio - Surveys	1
CW2	Coursework portfolio - Experimental Methods	1
CW3	Coursework portfolio - Advanced Statistics	1
CW4	Coursework portfolio - Psychometrics	1

SECOND (OR SUBSEQUENT) ATTEMPT Attendance at taught classes is required.

Specification confirmed by ……Date ……
(Associate Dean/Programme Director)