ACME Module Descriptor (GRS501)as at 3rd June 2020

Module Code	**: GRS501**		
Module Title	**: Research Methods**		
Occurrence	**: A Dundee Based**		
SCQF	**11**	**Credits**	**20**
School	**School of Applied Sciences**		**S1**
Division	**Division of Psychology and Forensic Sciences**	**Year**	**2019/0**
Tutor	**Noelle McAra**		
External Examiner(s)	**Carole Davis**		
Prerequisites			
Corequisites			
Replaced			

Brief Description
GSR501 This module is designed to introduce postgraduate students to research methods and statistical analysis. Theoretical, historical and statistical concepts are taught in lectures with hands on practical lab sessions using both quantitative and qualitative techniques that allow students to put theory into practice

Aims
The aim of this module is to provide the student with a critical understanding of theories, concepts and principles of research methodology and the range of methods used in conducting research in different disciplines; and, to give the student the skills and knowledge necessary to undertake an original in-depth investigation in those fields

Learning Outcomes
By the end of this module the student should be able to :
1. Critically review current knowledge in a specified area, and establish its status and limitations
2. Identify, conceptualise and define a research question(s) and justify its relevance to practice and its significance as a potential contribution to existing knowledge.
3. Select and justify a research methodology to meet specified research aims and objectives.
4. Critically analyse and interpret primary/secondary research data (quantitative and/ or qualitative), testing for validity and reliability of the results.

Indicative Content

1. **Introduction to Research**
The nature and purpose of research; different types of research (quantitative qualitative, mixed methods, developmental, practice based) and their mapping within different philosophical paradigms (positivism, interpretivism, pragmatism); strengths and weaknesses.
2. **Dealing with Practical Issues, Ethics**
The research process; identifying a research topic and setting research objectives; developing a research strategy; characteristics of a good research project; ethical issues in conducting research.
3. **Searching and Reviewing the Literature**
The purposes and main steps of a literature review; searching, evaluating, organizing and synthesizing the relevant literature; and, writing a literature review and managing bibliographic records. In addition, developing research questions for qualitative and quantitative research; and identifying characteristics/attributes
4. **Data Collection and Analysis**
Approaches to data collection and analysis (quantitative, qualitative, mixed-methods, iterative); questionnaire design; populations, samples, and sampling methods; data Mining.
5. **Writing your Research Proposal**
Identifying a research problem or issue, the purpose of the research and the main research question(s); choosing the research strategy and methods; writing a research proposal. In addition: discussing findings, formulating conclusions, making recommendations, and reporting; planning, executing, writing up, and submitting a dissertation.
6. **Descriptive Statistics for Quantitative and Qualitative Data**
Summarizing and visualizing data sets; finding trends in data and formulating a research hypothesis.
7. **Introduction to Probability and Statistical Inference**
Basic concepts of probability and probability distribution; discrete and continuous random variables; basic probability distributions; introduction to the hypothesis testing procedure.
8. **The Hypothesis Testing Procedure**
Parametric and non-parametric tests; Chi-squared Test for Association; Independent Sample t-Test; One and Two Way Analysis of Variance ANOVA; power calculation and sample size estimation.
9. **Correlation and Regression**
Relationship between two numeric variables, dependent and independent variable; Pearson¿s Correlation Coefficient; Simple Linear Regression.
10. **Multiple Regression**
Multiple Regression Analysis and introduction to the General Linear Model.

Statement on Teaching, Learning and Assessment
Teaching and learning on this module will be interactive and learner centred, designed to create an environment forging learner empowerment and autonomy, and critical analysis skills. The module will also develop students' research skills through structured (theoretical) input and through practice application, including lab based work, with delivery including lectorials, lectures, lab sessions, tutorial sessions and supporting drop in clinics. In week 7, students will have the opportunity to receive feedback and feed forward on a draft of the research report they are required to submit in week 9 for the assessment of part 1 of this module (for further details, see Assessment and Additional Assessment Information, below).

Teaching and Learning Work Loads :

Total	**: 200**
Lecture	**: 12**
Tutorial/Seminar	**: 8**
Supervised Practical Activity	**: 12**
Unsupervised Practical Activity	**: 0**
Assessment	**: 40**
Independent	**: 128**

Assessment

			Assessment Week Number			
Type	**Description**	**Final Grade Weighting (%)**	**Issue**	**Submission**	**Return**	**Assoc Learning Outcomes**
Report	**Research Proposal**	**50**	**2**	**9**	**11**	**1,2,3**
Scheduled examination	**Exam**	**50**	**EP**	**EP**	**EP**	**3,4**

Additional Assessment Information
The assessment of part 1 of this module will involve the submission of a research report on a topic selected from a collection of discipline specific broad areas. The assessment of part 2 of the module will be discipline specific involving either a practical examination using SPSS, or the preparation of a project report. Further details on the assessment are given in the Module Handbook, provided by the students¿ School.

Teachability Issues for this module are:
Oral,Visual,Diagrammatic,Computer Based,Reading,Writing

Key Transferable Skills for this module are:
Communication,Research,ICT Skills